

## **Fishery Management Report No. 94-8**

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# **1993 Area Management Report for the Recreational Fisheries of the Anchorage Area**

by

**Barry Stratton,  
Andrew Hoffmann,  
and  
Paul Cyr**

July 1994

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Alaska Department of Fish and Game

Division of Sport Fish



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Division of Sport Fish  
Anchorage, Alaska

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## SECTION I: AREA OVERVIEW

### Area Description

The Anchorage sport fish management area consists of all waters flowing into Knik and Turnagain arms between the Eklutna River drainage in the North and Ingram Creek in the South (Figure 1). Local communities include Anchorage, Eagle River, Chugiak, Birchwood, Peters Creek, Eklutna, Indian, Bird, Girdwood, and Portage, and two military reservations, Elmendorf Air Force Base and Fort Richardson Army Base. Forty-two percent of Alaska's 545,774 residents (April 1990 national census figures) reside in the Anchorage area. Access to area sport fisheries is primarily by road. Anchorage area land managers include private individuals, Municipality of Anchorage (MOA), Alaska Railroad (ARR), Alaska Department of Natural Resources (DNR), U.S. Forest Service (USFS), U.S. Bureau of Land Management (BLM), U.S. military, and native organizations.

Management and research functions for Anchorage area sport fisheries are conducted by Alaska Department of Fish and Game (ADF&G) Division of Sport Fish staff from the Anchorage regional office. Division of Sport Fish staff involved in 1993 Anchorage area programs included Area Management Biologist Kelly Hepler, Assistant Area Management Biologist Andrew Hoffmann, and permanent-seasonal Fish and Wildlife Technician III Paul Cyr.

Regulations governing Anchorage area sport fisheries are embodied in the Susitna-West Cook Inlet Area. Codified regulations for this area are found in Chapter 61 of the Alaska Administrative Code (AAC). For the purposes of effort and harvest reporting, the Statewide Harvest Survey (SHS) by Mills (1979-1993) is used with Anchorage area fisheries summarized in Area L (Anchorage Area).

### Fisheries Resources

The Anchorage area offers unique and diverse recreational fishing opportunities in an urban environment. Major area sport fisheries occur in fresh water and target three species of salmon (chinook or king, coho, and pink), rainbow trout, landlocked (chinook and coho) salmon, Dolly Varden, Arctic char, and Arctic grayling. Wild stock salmon sport fisheries occur in several Turnagain Arm streams including Bird Creek (pink salmon) and Twentymile River (coho salmon). Sport fisheries have been established in Ship Creek with stocked chinook and coho salmon. Recently, stocked salmon fisheries have been established in Eagle River (chinook salmon) and Campbell and Bird creeks (coho salmon). Turnagain Arm also supports the state's largest eulachon (hooligan or smelt) fishery. The largest Anchorage area sport fishery is the stocked lake program, with harvests of over 45,000 fish annually. This fishery encompasses 27 lakes stocked with rainbow trout, landlocked salmon (chinook and coho), Arctic char, and Arctic grayling. Angling opportunities for resident Dolly Varden occur in numerous streams. Two streams are currently stocked with rainbow trout (Campbell and Chester creeks).

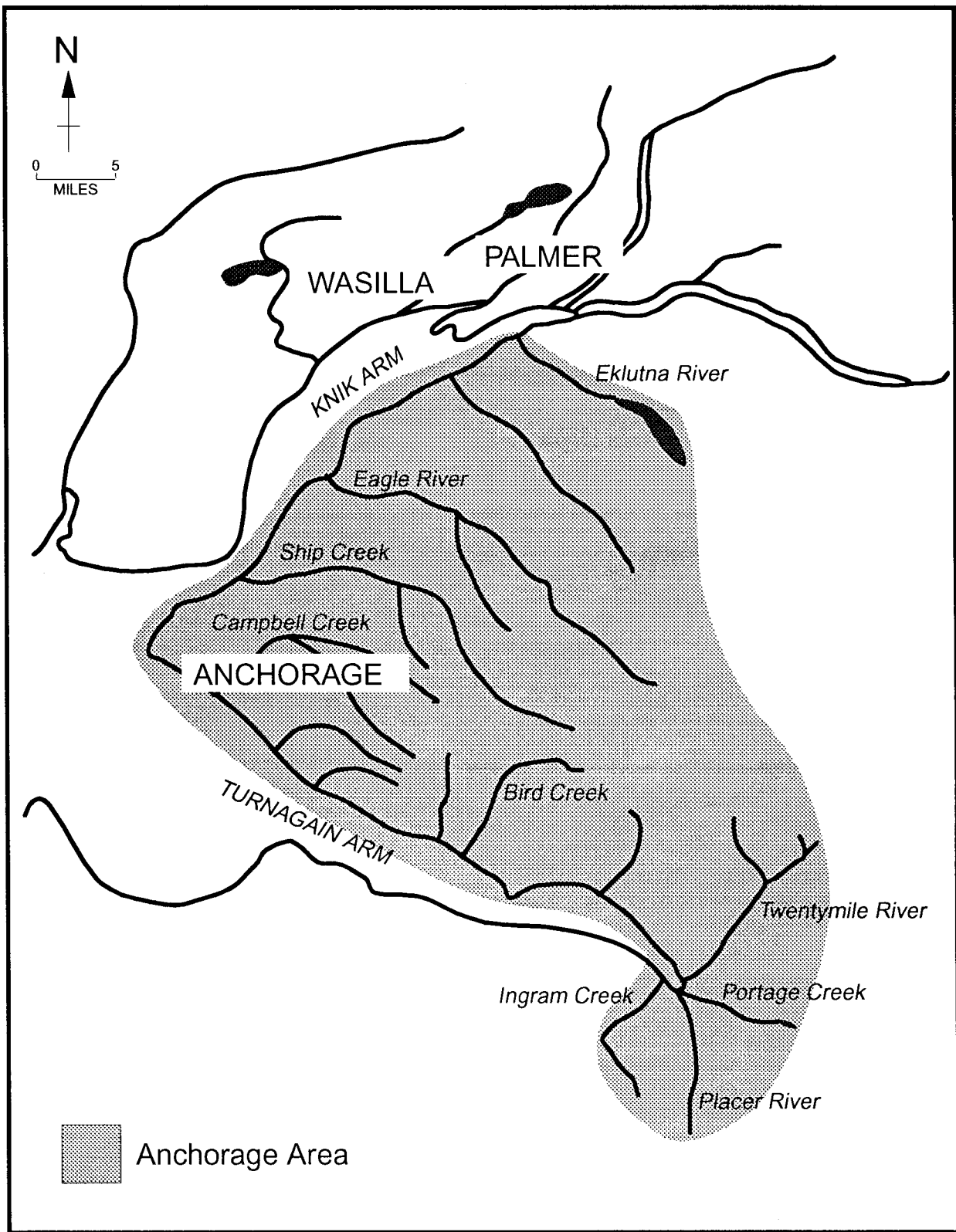


Figure 1. Map of the Anchorage area.

## Alaska Board of Fisheries Activities

The development of fishing regulations for Anchorage management area sport fisheries occurs within the established Alaska Board of Fisheries (BOF) process. This process provides for public contribution concerning regulatory changes and allocation issues, including testimony to BOF and through local fish and game advisory committee participation. These advisory committees have been established throughout Alaska to assist BOF with assessing fisheries and wildlife issues. Most active committees meet at least annually, usually in the fall before BOF meetings. Division of Sport Fish and other division staff are often invited to the advisory committee meetings. In this way, advisory committee meetings allow for direct public interaction with staff involved with local resource issues. The Anchorage Fish and Game Advisory Committee serves the Anchorage area. Under the current operating schedule, BOF meets on a 3-year cycle. Proposals regarding Anchorage area fisheries were discussed during the 1992/1993 BOF meetings and will be heard again at the 1995/1996 BOF meetings.

There were no BOF actions regarding Anchorage area sport fisheries in 1993. In November 1992, BOF made changes to some Anchorage area regulations. These changes included (1) time and area regulations for the new, hatchery enhanced Eagle River king salmon fishery, (2) the new coho salmon sport fishery in Campbell Creek, and (3) increasing the area open to fishing on Bird Creek. Detailed summaries of BOF actions in 1992 can be found in Hoffmann et al. (1993).

Regulation summaries for Campbell Creek, Eagle River, and Ship Creek are presented in Appendix A.

## Recreational Angler Effort

When compared to other major southcentral Alaska sport fisheries, angler effort in Anchorage area fisheries, combined, rank second to that expended on Kenai River. Anchorage stocked lakes sport fishing effort approximates that on Russian River, and is greater than either Deshka or Little Susitna rivers (Figure 2). Since the inception of SHS, angler effort in Anchorage has gradually increased. In 1992, the effort was almost 5-fold greater than the 1978 low (Table 1). This growth trend has continued and effort has averaged about 122,000 angler days annually from 1988-1992. The Anchorage area consistently represents about 5% of the total statewide sport fishing effort and about 7% of the total recorded southcentral Alaska effort (Table 1, Figure 3). The Anchorage stocked lakes program has accounted for about 71% of the total Anchorage area effort, with area streams accounting for most of the difference (Table 2, Figure 4). The Ship Creek salmon sport fishery has grown rapidly in recent years. In 1992, Ship Creek accounted for 60% of the Anchorage area stream effort, up from 19% in 1985 before stocked fish became available to the fishery (Table 3, Figure 5). Other Anchorage area streams that receive substantial effort are Bird Creek (17% of total stream effort), Eagle River (7%), Twentymile River (6%), and Campbell Creek (2%). Anchorage lakes lie in four basic geographic areas: (1) Anchorage bowl, (2) Fort Richardson, (3) Elmendorf, and (4) suburban areas such as Portage Valley and north of Eagle River to Eklutna. Anchorage bowl lakes account for most of the lake effort (42%) followed by Elmendorf lakes (21%). Fort Richardson and other suburban lakes split the remaining effort (Table 4, Figure 6). Historical summaries of

Effort = Angler-days

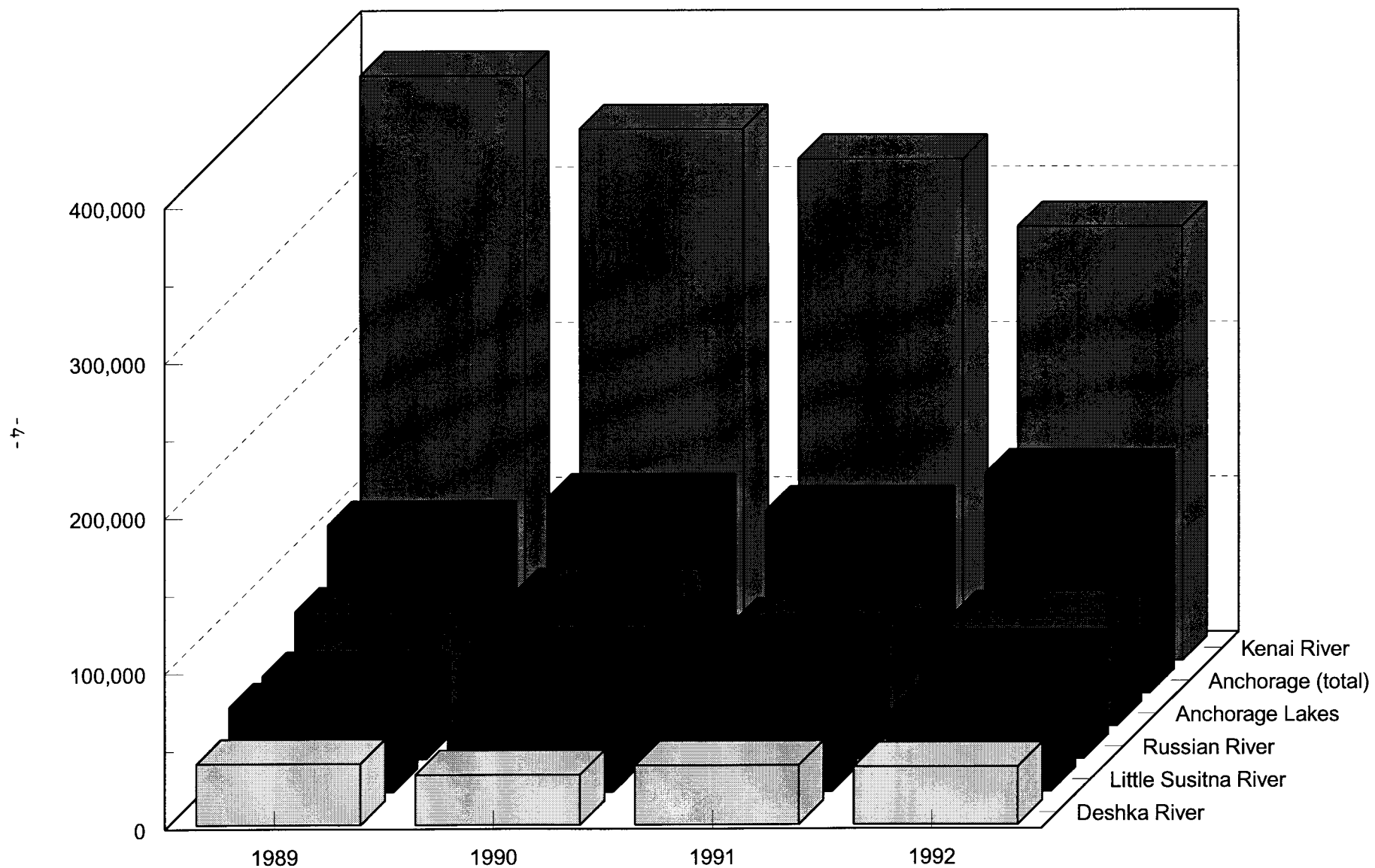


Figure 2. Comparison of angler effort in the Anchorage area to other major fisheries in southcentral Alaska.

Table 1 and Figure 3. Number of angler-days expended sport fishing in the Anchorage area, 1977-1992.

Year	Statewide Effort	Southcentral Effort	Anchorage		
			Effort	% of Statewide	% of S. Central
1977	1,198,486	828,351	55,060	5%	7%
1978	1,285,063	913,417	31,147	2%	3%
1979	1,364,739	1,014,018	65,425	5%	6%
1980	1,488,962	1,072,384	79,665	5%	7%
1981	1,420,172	1,016,731	67,618	5%	7%
1982	1,623,090	1,131,358	82,007	5%	7%
1983	1,732,528	1,212,916	74,972	4%	6%
1984	1,866,837	1,341,658	119,972	6%	9%
1985	1,943,069	1,406,419	96,760	5%	7%
1986	2,071,412	1,518,712	103,152	5%	7%
1987	2,152,886	1,556,050	115,145	5%	7%
1988	2,311,291	1,679,939	114,823	5%	7%
1989	2,264,079	1,583,547	107,613	5%	7%
1990	2,453,284	1,745,110	125,849	5%	7%
1991	2,456,328	1,782,055	117,780	5%	7%
77-91 Avg.	1,842,148	1,320,178	90,466	5%	7%
1992	2,540,374	1,889,930	141,571	6%	7%
% Change	38%	43%	56%		

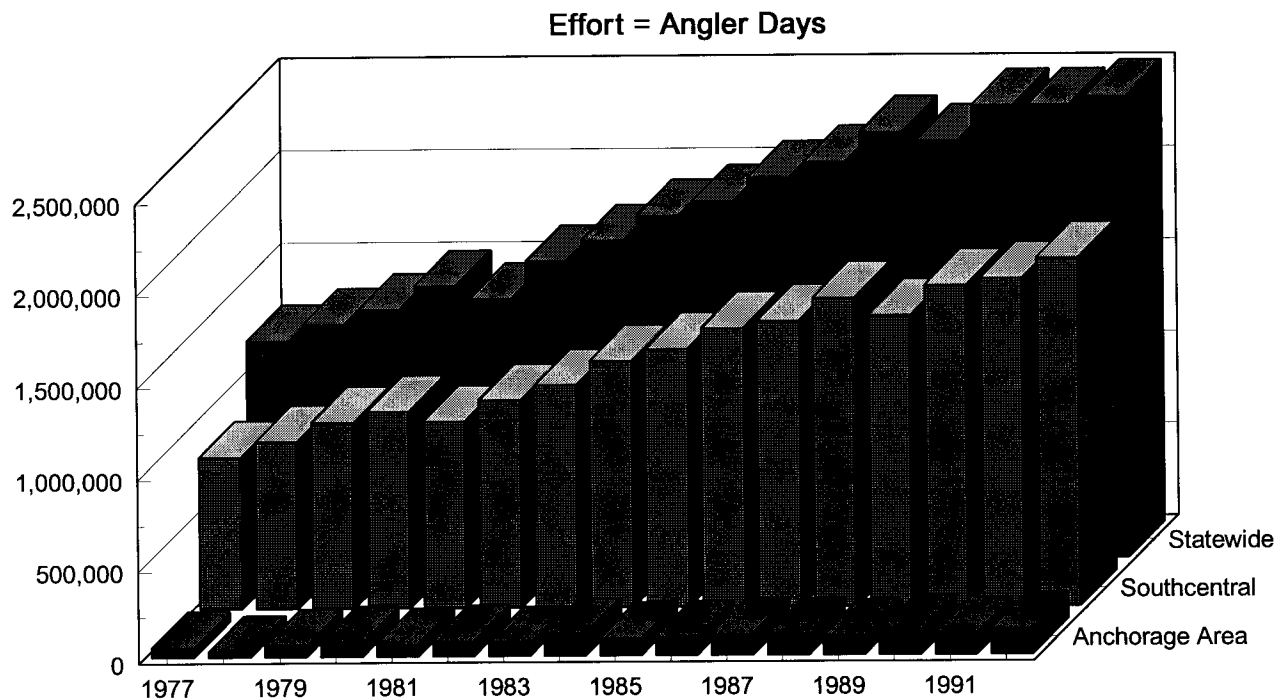




Table 2 and Figure 4. Major components of Anchorage area sport fishing effort, 1977-1992.

Year	Total Anchorage Effort	Saltwater		Lake		Stream	
		Effort	Percent	Effort	Percent	Effort	Percent
1977	55,060	a		38,784	70	16,276	30
1978	31,147	a		24,318	78	6,829	22
1979	65,425	a		51,702	79	13,723	21
1980	79,665	a		60,630	76	19,035	24
1981	67,618	a		52,890	78	14,728	22
1982	82,007	a		66,705	81	15,302	19
1983	74,972	3,308	4	56,554	75	15,110	20
1984	119,972	5,755	5	88,887	74	25,330	21
1985	96,760	3,103	3	68,495	71	25,162	26
1986	103,152	1,721	2	70,517	68	30,914	30
1987	115,145	1,587	1	84,444	73	29,114	25
1988	114,823	1,190	1	75,314	66	38,319	33
1989	107,613	1,163	1	74,118	69	32,332	30
1990	125,849	2,186	2	85,715	68	37,948	30
1991	117,780	2,828	2	66,596	57	48,356	41
77-91 Avg	90,466	1,523	2	64,378	71	24,565	27
1992	141,571	3,271	2	71,194	50	67,106	47
% Change	56%	115%		11%		173%	

a - Data not broken out by site but included in total

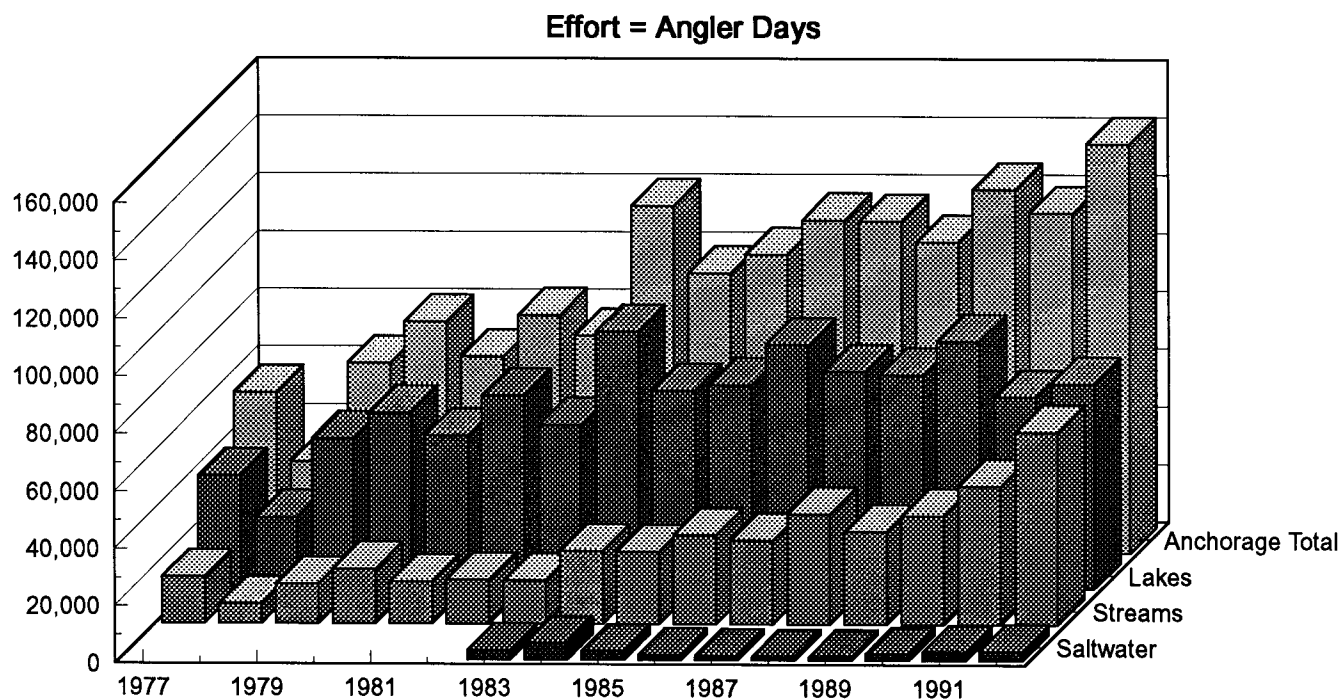


Table 3 and Figure 5. Angler effort in Anchorage area streams, 1977-1992.

Year	Total Stream	Ship Creek		Bird Creek		Campbell Creek		Twentymile River		Eagle River		Other Streams	
	Effort	Effort	Percent	Effort	Percent	Effort	Percent	Effort	Percent	Effort	Percent	Effort	Percent
1977	16,276	1,156	7%	7,389	45%	a	a	6,403	39%	1,328	8%	b	b
1978	6,829	1,551	23%	1,896	28%	a	a	2,736	40%	646	9%	b	b
1979	13,723	4,150	30%	2,971	22%	a	a	3,899	28%	2,703	20%	b	b
1980	19,035	4,441	23%	3,927	21%	a	a	8,582	45%	2,085	11%	b	b
1981	14,728	2,293	16%	2,946	20%	a	a	7,429	50%	2,060	14%	b	b
1982	15,302	2,695	18%	2,081	14%	a	a	7,489	49%	3,037	20%	b	b
1983	15,734	1,844	12%	3,325	21%	1,017	6%	4,790	30%	2,205	14%	1,929	12%
1984	25,564	3,647	14%	6,843	27%	1,824	7%	6,207	24%	5,387	21%	1,422	6%
1985	25,387	4,890	19%	8,497	33%	2,272	9%	6,676	26%	1,838	7%	989	4%
1986	31,434	4,618	15%	12,507	40%	2,217	7%	6,452	21%	2,645	8%	2,475	8%
1987	29,621	11,989	40%	5,614	19%	1,485	5%	5,505	19%	1,684	6%	2,837	10%
1988	39,495	14,115	36%	9,532	24%	4,729	12%	4,820	12%	1,273	3%	3,850	10%
1989	33,312	16,424	49%	5,844	18%	1,942	6%	4,043	12%	2,017	6%	2,062	6%
1990	37,309	15,112	41%	9,138	24%	3,983	11%	4,537	12%	2,002	5%	3,176	9%
1991	48,066	29,768	62%	7,551	16%	1,977	4%	4,178	9%	1,106	2%	3,776	8%
77-91 Avg	24,788	7,913	27%	6,004	25%	1,430	4%	5,583	28%	2,134	10%	1,501	5%
1992	67,106	40,513	60%	11,352	17%	1,515	2%	4,257	6%	4,908	7%	4,561	7%
% Change	171%	412%		89%		6%		-24%		130%		204%	

a - Data not broken out by site but included in total.

b - includes saltwater effort.

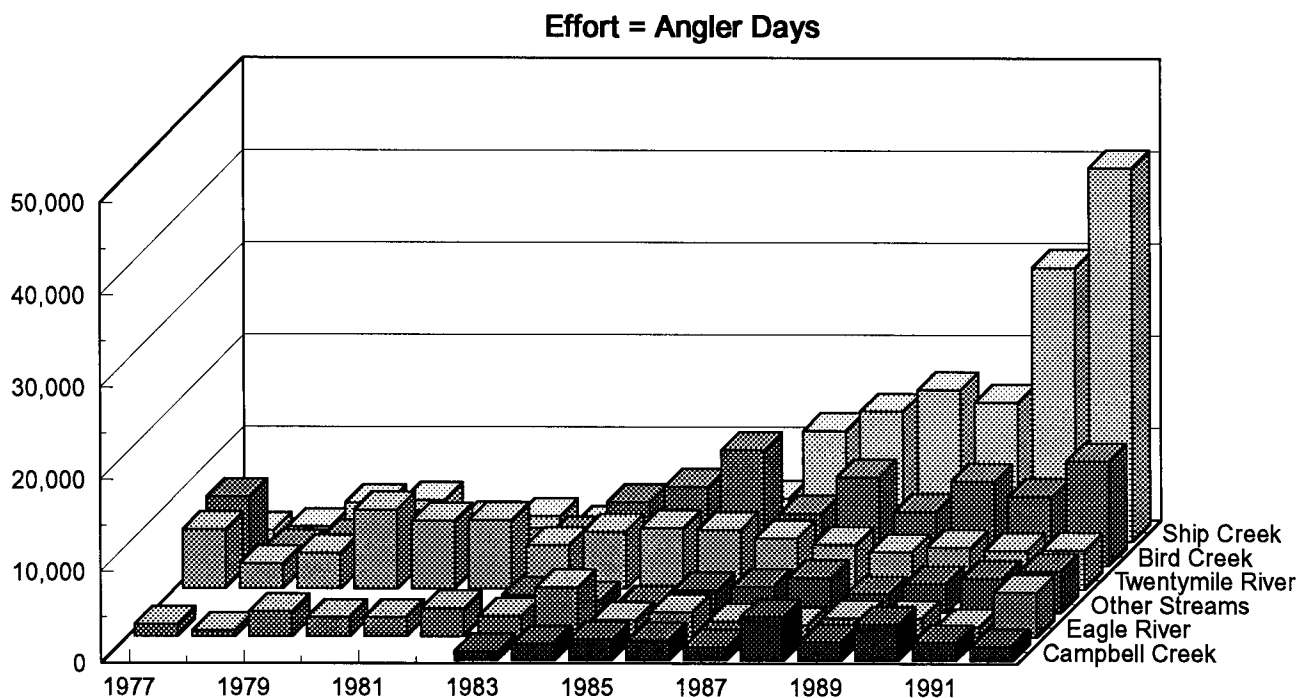
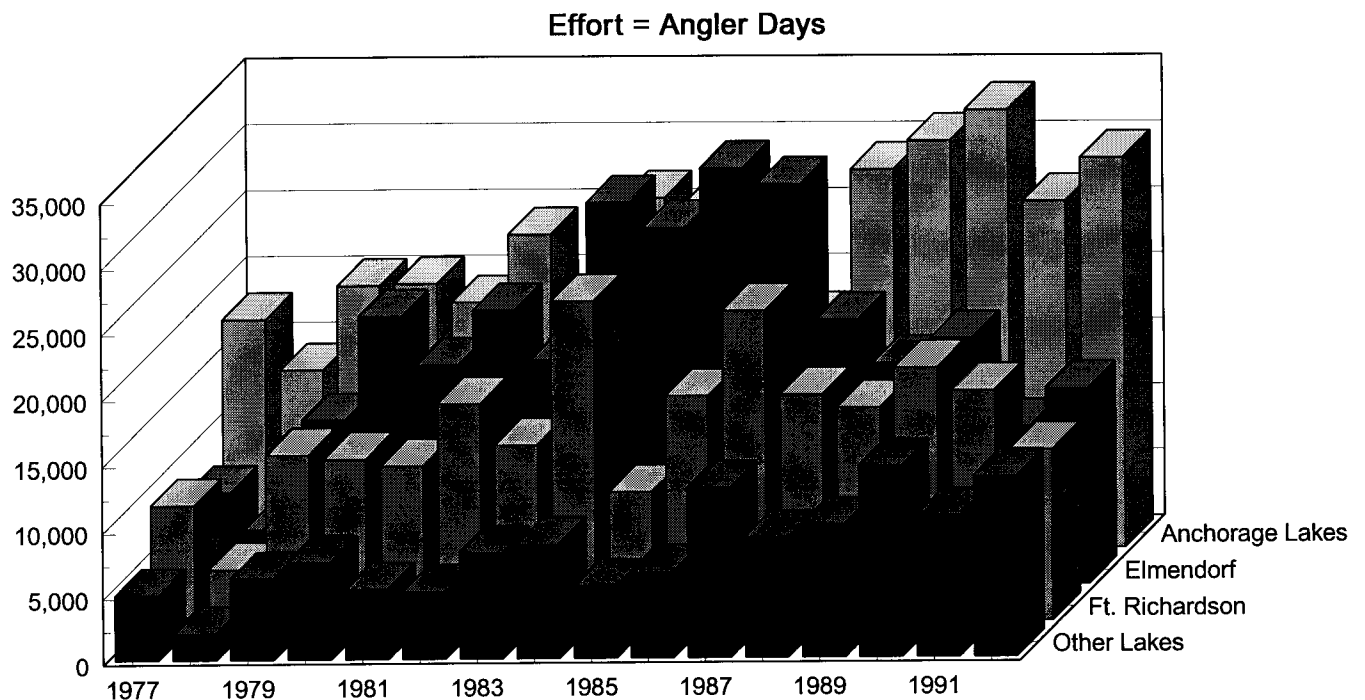


Table 4 and Figure 6. Angler effort in Anchorage Area lakes by geographic area, 1977-1992.

Year	Total Lake Effort	Anchorage		Fort Richardson		Elmendorf		Other	
		Effort	Percent	Effort	Percent	Effort	Percent	Effort	Percent
1977	38,784	17,595	45%	9,011	23%	7,238	19%	4,940	13%
1978	24,318	13,743	57%	4,157	17%	4,415	18%	2,003	8%
1979	51,702	20,137	39%	12,765	25%	12,638	24%	6,162	12%
1980	60,630	20,262	33%	12,452	21%	20,519	34%	7,397	12%
1981	52,890	18,834	36%	11,913	23%	16,818	32%	5,325	10%
1982	66,705	23,986	36%	16,599	25%	20,967	31%	5,153	8%
1983	56,554	17,889	32%	13,440	24%	17,179	30%	8,046	14%
1984	88,887	26,718	30%	24,392	27%	29,093	33%	8,684	10%
1985	68,495	25,907	38%	9,884	14%	27,225	40%	5,479	8%
1986	70,517	15,147	21%	17,139	24%	31,681	45%	6,550	9%
1987	84,444	17,456	21%	23,634	28%	30,461	36%	12,893	15%
1988	75,314	28,791	38%	17,225	23%	20,157	27%	9,141	12%
1989	74,118	30,980	42%	16,209	22%	16,836	23%	10,093	14%
1990	85,715	33,297	39%	19,254	22%	18,691	22%	14,473	17%
1991	66,596	26,372	40%	17,482	26%	11,986	18%	10,756	16%
77-91 Avg.	64,378	22,474		15,037		19,060		7,806	
1992	71,194	29,646	42%	12,964	18%	14,853	21%	13,731	19%
% Change	11%	32%		-14%		-22%		76%	



effort estimates by site are listed in Appendix B. Pink and coho salmon comprise the largest anadromous catch by area anglers (Table 5, Figure 7). Rainbow trout (Table 6, Figure 8) and eulachon (Table 6) are the most popular resident species to anglers. In 1992, fishers released a high proportion of their coho salmon catch while they kept most Arctic grayling (Figure 9).

#### Other User Groups

Anchorage area commercial, subsistence and recreational salmon fisheries are prosecuted under guidelines set forth in the "Upper Cook Inlet Salmon Management Plan" described in 5 AAC 21.363. The only Anchorage area commercial fishery is the Northern District set gill net salmon fishery. This fishery is open the first three Mondays in June with a 12,000 chinook salmon quota. The Northern District fishery re-opens 25 June and targets sockeye salmon. There are two weekly openings, Monday and Friday, from 7:00 a.m. to 7:00 p.m. Additional openings are possible with emergency orders and generally occur on Wednesdays. Recent BOF actions mandated that there will be no additional commercial openings after 15 August to minimize harvest of Susitna drainage coho salmon. There are currently no subsistence fisheries that significantly impact Anchorage area sport fisheries.

#### Economic Value of Sport Fisheries

Evaluation of an activity from an economic standpoint is useful for comparing that value to other resource uses and/or community activities. These comparisons provide a cost/benefit basis for evaluating resource management and research activities. Unfortunately, assigning a dollar value to recreational activities is an extremely complex and subjective endeavor. In 1987, Jones and Stokes Associates of Sacramento, California completed the first sport fishing economic study of southcentral Alaska for ADF&G (Jones and Stokes 1987). This study was conducted using fishery and economic data from 1986. The purpose of the study was to assess the economic importance of sport fisheries in southcentral Alaska by estimating (1) sport fishing expenditures, (2) economic impacts of angler spending, and (3) non market values. The study found that, in 1986, anglers spent more than \$127 million to participate in southcentral Alaska sport fishing activities. Of this total, \$34 million was spent outside Alaska on transportation costs, \$44 million was spent in the Anchorage area, \$32 million was spent in the Kenai Peninsula area, and the remaining \$17 million was spent in other areas of the state (primarily Fairbanks). The Anchorage area received a major portion of the money spent in southcentral Alaska because it is the transportation hub of Alaska. For example, an angler may travel to Anchorage and purchase fishing equipment, supplies, and transportation to fishing locations outside the area. In 1986, sport fishing related spending accounted for over 750 jobs in the Anchorage area with \$7.5 million in direct earnings. Over 65% of the money spent in Anchorage on sport fishing related goods and services were at retail outlets.

#### Major Issues

Issues currently facing Anchorage area management biologists are biological and social in nature. As the department develops urban area recreational fisheries to keep up with increasing angler demands, potential conflicts with other resource users arise. The central issue is identifying the entity(ies) responsible for parking, litter, bathroom facilities, and crowd control after

Table 5 and Figure 7. Anchorage area sport harvest of anadromous salmon, 1977-1992.

Year	Chinook Salmon	Sockeye Salmon	Coho Salmon	Pink Salmon	Chum Salmon
1977	0	25	1,127	2,953	0
1978	0	14	792	1,176	20
1979	0	204	974	781	0
1980	0	146	1,222	2,601	86
1981	0	383	1,474	1,293	29
1982	0	272	1,571	1,178	10
1983	2	589	1,538	1,132	10
1984	74	598	2,768	4,042	162
1985	61	621	2,002	1,866	634
1986	33	603	3,419	11,528	982
1987	485	1,431	2,915	2,282	579
1988	663	472	6,639	5,075	691
1989	950	564	4,734	1,631	985
1990	457	244	2,488	4,932	315
1991	1,169	749	4,393	1,986	360
1992	2,448	1,315	5,698	8,901	297
77-92 Avg	396	514	2,735	3,335	323

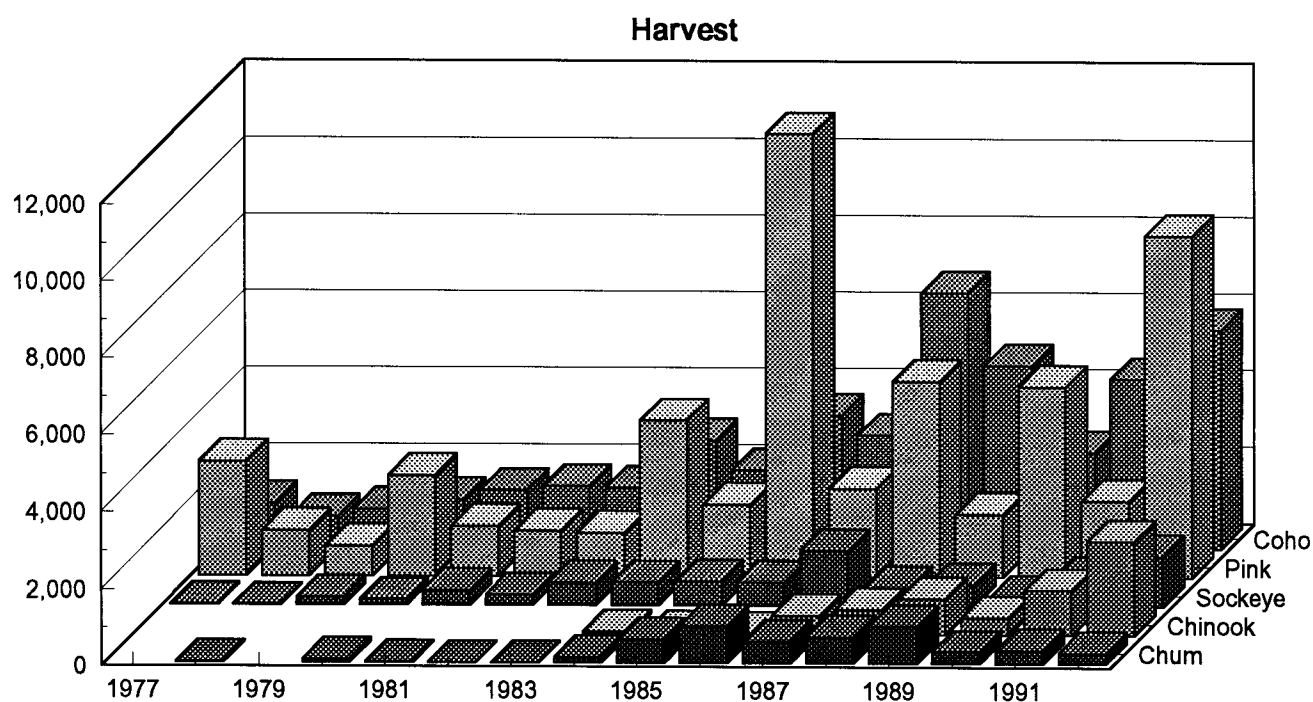


Table 6 and Figure 8. Anchorage area sport harvest of resident species, 1977-1992.

Year	Landlocked Salmon	Dolly Varden	Rainbow Trout	Arctic Grayling	Eulachon
1977	129	4,040	17,733	187	201,209
1978	18	4,264	30,463	0	112,352
1979	209	3,763	39,259	18	107,132
1980	15,574	3,607	33,141	77	81,624
1981	7,167	5,002	30,914	115	150,329
1982	2,557	2,893	49,242	210	116,617
1983	524	2,884	44,678	0	95,606
1984	997	6,981	49,592	262	301,545
1985	399	2,339	43,020	0	268,135
1986	749	2,425	39,864	168	123,954
1987	2,263	1,811	35,259	18	131,584
1988	4,364	3,636	59,864	1,001	139,508
1989	14,483	2,646	53,197	66	103,881
1990	6,775	2,208	58,435	576	133,027
1991	10,817	2,539	49,303	238	69,257
1992	13,985	3,269	33,317	413	42,964
77-92 Avg	5,063	3,394	41,705	209	136,170

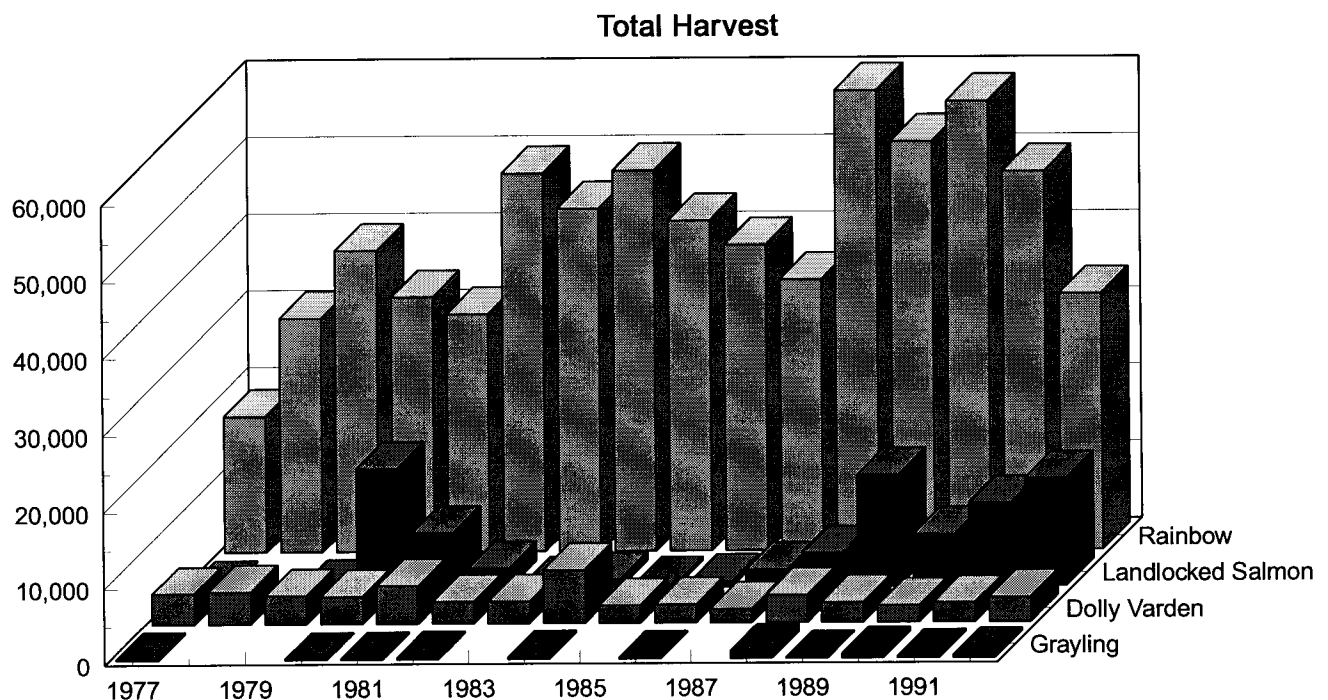




Figure 9. Comparison of fish kept and fish released for all species in the Anchorage area, 1992.

fish are stocked and the fishery is in operation. Other concerns include trespass and habitat degradation, especially bank erosion, resulting from increased angler activity.

The Ship Creek chinook and coho salmon fisheries, located in the middle of Anchorage's largest industrial area, are well established and continue to grow in popularity. Development by the primary land manager surrounding the fishery (ARR) is also increasing. Topics of concern at Ship Creek include parking shortages, litter, bathroom facilities, and additional security needs at night.

The Eagle River chinook salmon fishery occurs in areas managed by DNR and Fort Richardson Army Base. Concerns with the Eagle River fishery involve potential bank degradation from increased foot traffic compromising the "wilderness" character of Chugach State Park. We will evaluate the success or failure of this enhanced fishery after the 1995 sport fishing season.

While the Campbell Creek coho salmon fishery is located primarily within MOA green belt, significant portions of the stream flow through private residential areas. Some residents are concerned about trespass and increased hazards to area children, along with concerns about bank erosion and litter. The 1993 coho salmon fishery showed that these concerns were generally unwarranted.

In the Girdwood area, particularly Glacier and California creeks, there are trespass problems in accessing favored fishing spots as well as high incidence of snagging.

Several biological issues continue to be of concern for Anchorage area sport fisheries. Anchorage area sport fisheries have become reliant on hatchery produced fish because of increased effort and full utilization of wild stocks. The leveling out of angler effort in recent years may be a trend in activity or a result of resource saturation. If the stocks are saturated, management strategies should focus on either habitat enhancement for increased fishing opportunities or continued stocking efforts to maintain peak participation. One issue that persists wherever fish are stocked is that of wild versus hatchery stock genetics. While this issue is not of much concern in the Anchorage stocked lake program (most are closed systems), it is becoming more of a concern with the increased anadromous stocking in Eagle River, Ship, Campbell, and Bird creeks. A final biological concern is the illegal introduction of northern pike in at least three Anchorage area stocked lakes, Sand, Delong, and Lower Fire lakes. The presence of northern pike in these lakes could lead to a reduction in the sport harvest of stocked species.

Biological escapement goals (BEG) have been determined for chinook (300) and coho (200) salmon in Ship Creek, chinook salmon (300) in South Fork Eagle River, and coho salmon (200) in Campbell Creek. Detailed methods used to determine these BEGs are reported in Fried (*In press*).

#### Stocking Program Inventory

With limitations on the abundance of wild stocks and consistent increases in fishing effort, Anchorage area sport fisheries have become increasingly reliant on hatchery produced fish. Most fish stocked in the area lakes are harvested by the recreational fishery; however, anadromous salmon stocked in



area streams become part of the common property fishery and are caught by commercial, subsistence, and personal use fishers.

All stocking activities related to state run hatcheries are conducted under guidelines established in the Statewide Stocking Plan for Recreational Fisheries (ADF&G 1993). The coordination of statewide stocking activities was developed in 1988 to (1) optimize the use of hatchery facilities, (2) provide consistency, and (3) establish stocking priorities. The first plan was completed in 1989 after internal and public review and provided statewide stocking locations and schedules for 1989 through 1993. The current stocking plan provides statewide stocking locations and schedules for 1993-1996.

As outlined in the 1993-1996 stocking plan, 56,500 chinook salmon catchables will be distributed among 14 Anchorage area lakes and 315,000 chinook salmon smolt will be stocked into two area streams. Three Anchorage area streams received a share of 365,000 coho salmon smolt. A total of 119,000 rainbow trout catchables will be distributed among 26 area lakes, and two streams will divide an additional 12,500 rainbow trout catchables. About 4,000 catchable rainbow trout are allotted annually for the April Great Alaskan Sportsman's Show fishing pond. Approximately 355,000 rainbow trout fry are planned for release in Eklutna Lake. Arctic grayling (19,000) will be distributed among four Anchorage area lakes, and 5,000 Arctic char will be stocked in five area lakes. The individual locations and numbers per site for 1989-1993 and those proposed for 1994 are listed in Table 7, similar numbers will be stocked in 1995-1996. Historic stocking records for each Anchorage area location are presented in Appendix C.

Table 7. Anchorage area stocking summary from 1989 to 1993 and proposed stocking for 1994 .

	1989	1990	1991	1992	1993	1994
<b>RAINBOW TROUT (catchables)</b>						
<b>LAKES</b>						
Beach Lake	6,616	4,572	4,497	4,311	4,000	4,000
Campbell Point Lake	4,998	5,175	5,194	5,017	5,000	5,000
Cheney Lake	12,415	10,323	7,503	10,307	10,000	10,000
Clunie Lake	10,824	8,290	5,076	8,106	7,000	7,000
DeLong Lake	12,183	10,437	8,235	12,818	9,000	9,000
Dishno Lake	1,015	-	-	-	1,000	0
Eklutna Lake (fry)	614,372	50,016	2,405,416	986,434	355,000	355,000
Fish Lake	1,108	-	-	1,021	1,000	1,000
Green Lake	1,993	2,006	2,048	2,049	2,000	2,000
Gwen Lake	4,767	4,827	3,316	4,985	5,000	5,000
Hillberg Lake	1,510	1,500	1,557	1,500	1,500	1,500
Jewel Lake	20,546	14,527	12,950	18,671	13,000	13,000
Lake Otis	1,507	1,500	1,566	1,485	1,500	1,500
Lower Fire Lake	6,622	5,220	5,501	5,481	5,000	5,000
Mirror Lake	2,456	10,273	7,841	10,786	9,000	9,000
Otter Lake*	69,621	11,150	11,232	106,177	10,000	10,000
Portage Valley Lakes	3,333	5,215	5,570	5,230	10,000	10,000
Rabbit Lake	-	1,010	-	-	2,500	2,500
Sand Lake	9,835	7,211	5,225	11,413	7,000	7,000
Sixmile Lake	-	-	1,496	1,933	1,500	1,500
Spring Lake	1,015	-	-	1,065	1,000	1,000
Sundi Lake	1,530	1,508	1,500	1,516	1,500	1,500
Taku Campbell Lake	4,175	4,246	4,242	4,536	4,000	4,000
Thompson Lake	2,030	2,019	2,017	1,982	2,000	2,000
Triangle Lake	1,256	1,028	984	1,006	1,000	1,000
Tudor Lake	-	-	-	-	1,500	1,500
Waldon Lake	-	-	2,016	4,146	4,000	4,000
* Includes all fish stocked from the "Derby Pond" in Otter Lake						
<b>STREAMS</b>						
Campbell Creek	-	7,277	10,856	8,010	7,500	7,500
Chester Creek*	4,467	5,011	4,964	7,970	5,000	5,000
* Includes fish stocked in University Lake						
Total catchables	185,822	124,325	115,386	241,521	132,500	131,500
Total fry	614,372	50,016	2,405,416	986,434	355,000	355,000
Total	800,194	174,341	2,520,802	1,227,955	487,500	486,500

-continued-

Table 7. (Page 2 of 2).

	1989	1990	1991	1992	1993	1994
<b>ARCTIC GRAYLING</b>						
Beach Lake	4,000	4,000	4,000	-	4,000	4,000
Lower Fire Lake	7,000	7,000	7,000	-	7,000	7,000
Waldon Lake	-	-	-	-	4,000	4,000
Portage Valley Lakes	-	-	-	-	2,000	4,000
Total	11,000	11,000	11,000	0	17,000	19,000
<b>LANDLOCKED SALMON</b>						
Beach Lake	-	3,104	3,076	3,037	3,000	3,000
Campbell Point Lake	-	1,587	1,617	1,986	1,500	1,500
Cheney Lake	57,571	3,030	5,206	37,927	3,000	3,000
Clunie Lake	3,891	4,096	4,232	3,937	4,000	4,000
DeLong Lake	3,081	5,051	13,661	7,626	5,000	5,000
Green Lake	-	-	1,007	1,043	1,000	1,000
Gwen Lake	-	2,090	-	2,004	2,000	2,000
Hillberg Lake	-	-	6,624	1,071	1,000	1,000
Jewel Lake	10,297	140,130	15,620	183,197	12,500	12,500
Mirror Lake	5,405	6,880	4,981	10,263	5,000	5,000
Otter Lake	97,872	5,014	7,314	15,106	5,000	5,000
Sand Lake	50,200	9,973	10,014	15,302	10,000	10,000
Spring Lake	-	-	4,516	-	1,000	1,000
Portage Valley Lakes	-	-	-	-	0	2,500
Total	228,317	180,955	77,868	282,499	54,000	56,500
<b>ARCTIC CHAR</b>						
Campbell Point Lake	500	1,000	2,000	-	1,000	1,000
Clunie Lake	1,000	500	1,250	2,000	1,000	1,000
Gwen Lake	500	500	1,250	1,000	1,000	1,000
Thompson Lake	-	500	-	-	1,000	1,000
Mirror Lake					1,000	1,000
Total	2,000	2,500	4,500	3,000	5,000	5,000
<b>CHINOOK SALMON</b>						
Eagle River	-	-	102,100	107,695	105,000	105,000
Ship Creek	30,684	102,523	211,268	176,380	210,000	210,000
Total	30,684	102,523	313,368	284,075	315,000	315,000
<b>COHO SALMON</b>						
Bird Creek	-	-	-	121,416	150,000	150,000
Campbell Creek	-	-	-	80,759	150,000	150,000
Ship Creek	56,841	64,006	57,800	66,752	65,000	65,000
Total	56,841	64,006	57,800	268,927	365,000	365,000

## SECTION II: MAJOR FISHERIES OVERVIEW

This section discusses the major Anchorage area sport fisheries. For each major fishery, a discussion is presented on: (1) background and historical perspective, (2) recent fishery performance, (3) management objectives, (4) recent Board of Fish actions, (5) current biological and social issues, (6) ongoing research and management activities, and (7) recommended research and management activities. Discussion of recent fishery performance will center around 1992. The major source of data for most area fisheries is SHS, and the most current edition covers the 1992 season. Available observations or data regarding the 1993 fishery are presented

### ANCHORAGE AREA STOCKED LAKE FISHERIES

#### Background and Historical Perspective

Few Anchorage area lakes supported resident fish populations or recreational interest before the initiation of stocking efforts. Most lakes are landlocked and threespine stickleback was the only species present. In the 1960s, the department began a rainbow trout stocking program to increase sport fishing opportunities within the Anchorage area. Individual stocking histories through 1993 are found in Appendix C for all Anchorage area stocked lakes and streams.

On average, 26 area lakes and two creeks (Table 7, Figure 10) are stocked annually with 127,500 catchable size rainbow trout (ADF&G 1993). An additional 4,000 catchable rainbow trout are allotted for The Great Alaskan Sportsman's Show fishing pond in April. Approximately 355,000 rainbow trout fry are planned for release in Eklutna Lake in 1994. In addition, stocking with other species has been conducted to diversify angling opportunities. Fourteen lakes are stocked in late fall with a total of 56,500 chinook salmon (landlocked salmon) catchables to provide winter ice fishing opportunities. Four local lakes will receive a total of 19,000 Arctic grayling fingerlings. A total of 5,000 Arctic char are divided among five local lakes. These stocking efforts developed the most popular Anchorage area sport fishery and provide significant urban angling opportunities throughout the year. The lake stocking program has supported 50%-70% of the Anchorage area annual sport fishing effort in recent years.

Coho and chinook salmon fingerlings, post-smolt, and catchables have been stocked in several landlocked Anchorage area lakes. Since 1986, chinook salmon catchables have been stocked in several Anchorage area lakes before freeze-up to increase winter ice fishing opportunities. These fish are very aggressive and strike readily throughout the winter. The sport harvest of landlocked chinook salmon increased from 399 fish in 1985 to almost 14,000 fish in 1992 (Table 8, Figure 11).

A creel survey to evaluate the stocking program was conducted during 1986 on four Anchorage area lakes. Results of this survey (Havens et al. 1987) indicated that youth and adult males were the primary recreational fishers. The main objective of the survey was to determine if a single annual spring release of a large number of rainbow trout was suitable for the area lakes. Data indicated that catch rates remained high for 2 to 6 weeks after stocking, then dropped to below one fish per angler-hour. It was recommended, and

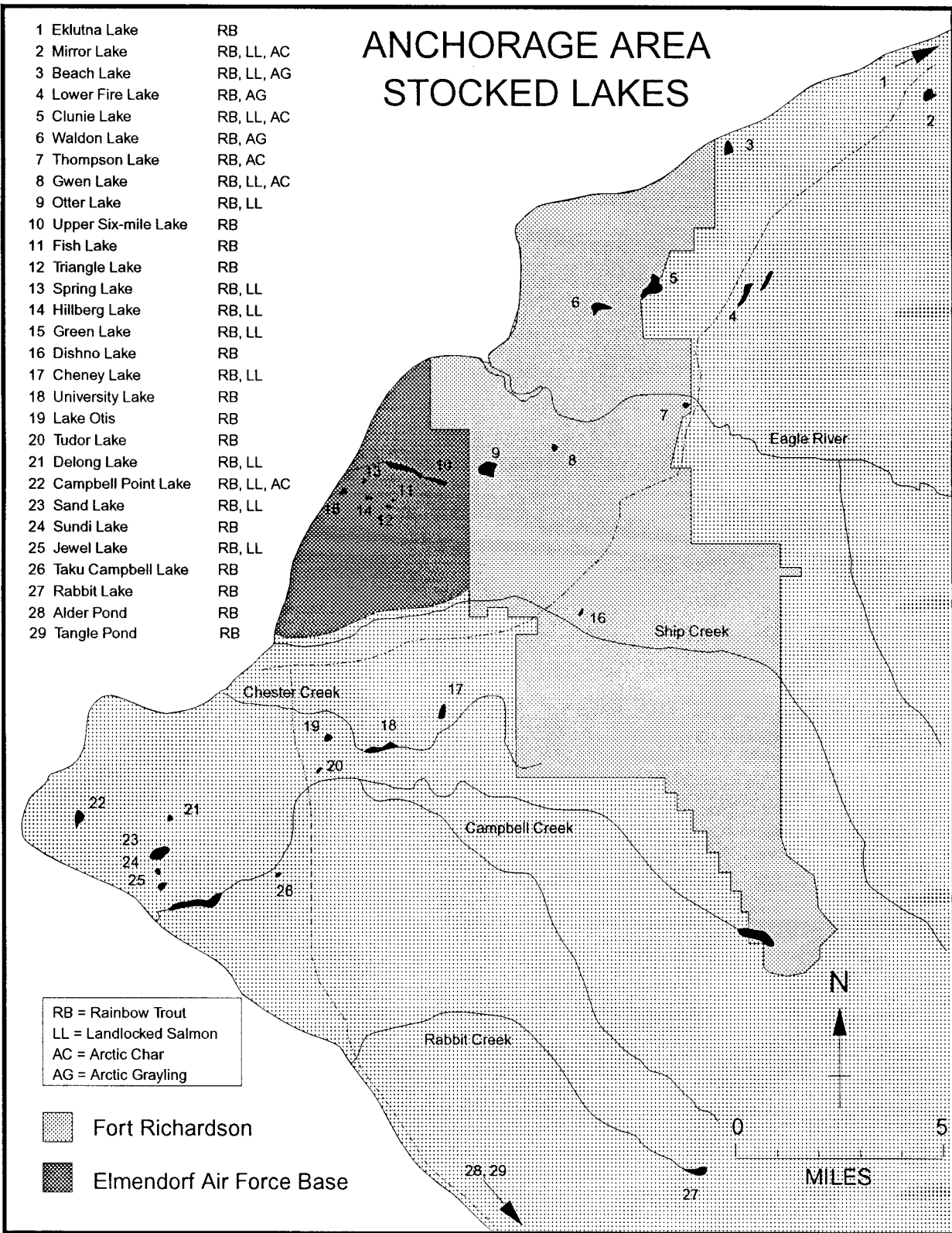
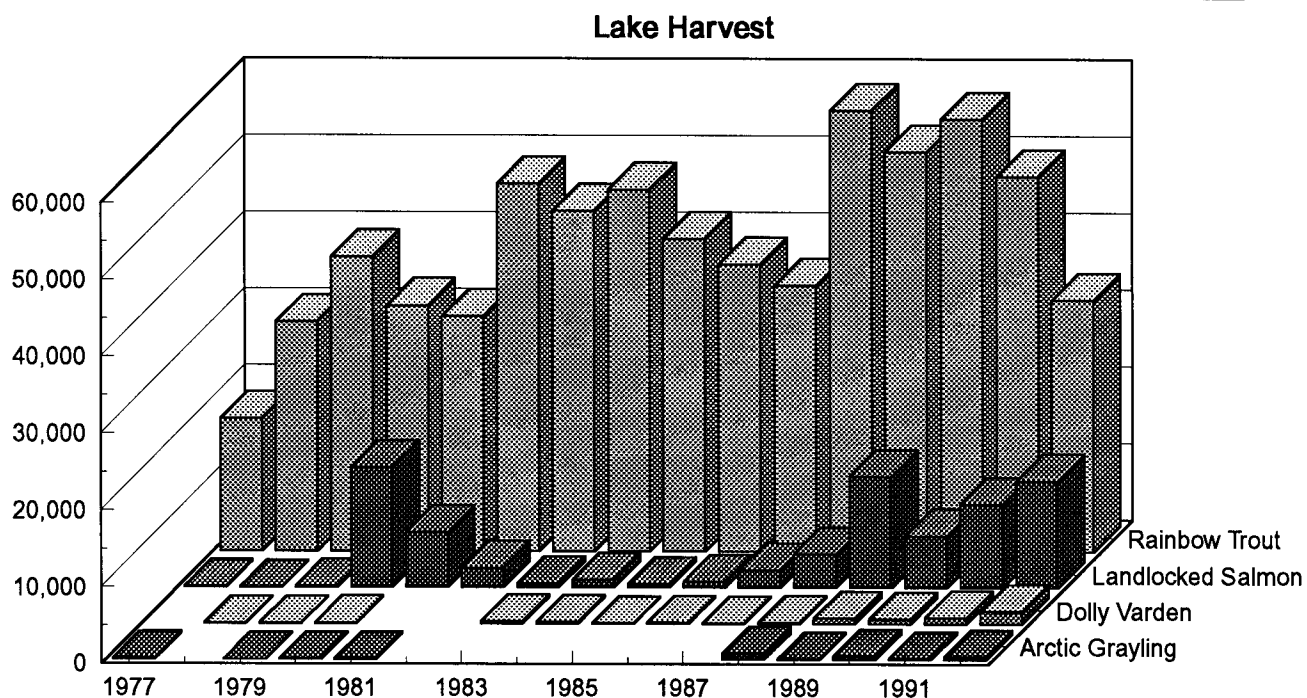


Figure 10. Map of Anchorage area stocked lakes.

Table 8 and Figure 11. Anchorage area sport fishing harvest from lakes by species, 1977-1992.

Year	Area Lake Total	Rainbow Trout	% of Total	Landlocked Salmon	% of Total	Arctic Grayling	% of Total	Dolly Varden	% of Total
1977	17,500	17,184	98%	129	1%	187	1%	0	0%
1978	29,813	29,752	100%	18	0%	0	0%	43	0%
1979	38,558	38,295	99%	209	1%	9	0%	45	0%
1980	47,673	31,936	67%	15,574	33%	77	0%	86	0%
1981	37,746	30,531	81%	7,167	19%	48	0%	0	0%
1982	50,426	47,869	95%	2,557	5%	0	0%	0	0%
1983	45,150	44,311	98%	524	1%	0	0%	315	1%
1984	48,256	47,086	98%	997	2%	0	0%	173	0%
1985	41,095	40,627	99%	399	1%	0	0%	69	0%
1986	38,256	37,339	98%	749	2%	0	0%	168	0%
1987	36,848	34,549	94%	2,263	6%	0	0%	36	0%
1988	62,720	57,372	91%	4,421	7%	819	1%	108	0%
1989	67,351	52,071	77%	14,483	22%	66	0%	731	1%
1990	64,222	56,277	88%	6,775	11%	527	1%	643	1%
1991	60,621	48,818	81%	10,817	18%	188	0%	798	1%
77-91 Avg	45,749	40,934	91%	4,472	8%	128	0%	214	0%
1992	48,721	32,708	67%	13,985	29%	413	1%	1,615	3%
% Change	6%	-20%		213%		222%		653%	



adopted, that initial stocking occur after ice-out and then repeated in 4 to 6 weeks. It is believed that multiple stocking increases fishing success throughout the open water season. Stocking of area lakes and streams has increased sport fishing opportunities for the general public, and assisted in the development of youth fishing classes, the trout pond at the annual fishing fair, the annual ice fishing jamboree for disabled and underprivileged anglers, and the Ship Creek king salmon derby that benefits the Foster Grandparents Program.

#### Recent Fishery Performance

Since 1977, anglers fishing Anchorage area lakes have harvested an average of 40,934 rainbow trout, 4,472 landlocked salmon, 214 Dolly Varden/Arctic char, and 128 Arctic grayling annually (Table 8, Figure 11). The most popular Anchorage area lakes include Jewel, Mirror, Otter, Sixmile, Cheney and Delong. In 1992, rainbow trout dominated Anchorage area lake harvests (67%) with landlocked salmon comprising most of the remaining harvest (29%). Arctic char and Arctic grayling contributed 4% in 1992. In spite of the high proportion of the total harvest, the 1992 rainbow trout harvest was the lowest in 11 years due to the increased landlocked salmon harvest. Lake fishery harvest trends by area are shown in Table 9 and Figure 12. In 1992, Anchorage area lakes produced 44% of the lake harvest, followed by Fort Richardson lakes with 23%. Elmendorf lakes contributed 11% in 1992. However, in 1993, Elmendorf was opened to fishing by nonmilitary anglers. We expect to see harvest increase in the future. The other lakes category, consisting of Portage Valley lakes and lakes north of Anchorage (from Eagle River to Eklutna), contributed 22% to the total Anchorage area lake sport harvest. This increased contribution was anticipated due to the development of additional gravel pit lakes in the Portage area by USFS.

Rainbow trout harvests in 1992 followed the same trends as the harvest of all species combined in lakes (Table 10, Figure 13). Most rainbow trout were caught in Anchorage area lakes (43%) and Ft. Richardson lakes (25%). In 1992, landlocked salmon were primarily harvested in Anchorage lakes (56%) and "Other" lakes (23%) (Table 11, Figure 14).

Eklutna Lake is the only Anchorage area lake stocked with rainbow fry rather than catchable sized fish. When a reduction in the numbers of rainbow trout fry reared at the hatcheries is required to allow for growth of remaining fish to catchable size, the excess production is stocked into Eklutna Lake. Variable numbers of fish have been stocked, from 50,000 in 1990 to nearly 2.5 million in 1991. Survival of fry and fingerlings is much lower than that for catchable sized fish, and growth is much slower in this glacier fed lake. However, sampling of Eklutna Lake has shown that an adequate population of catchable rainbow trout exists to support a sport fishery. It is expected that angler effort will increase as people become aware of this opportunity.

#### Management Objectives

Maintain or increase current effort levels in area lakes through stocking.

Table 9 and Figure 12. Total harvest of all species from Anchorage area lakes by geographic area, 1977-1992.

Year	Area Total	Anchorage	% of Total	Fort Richardson	% of Total	Elmendorf	% of Total	Other Lakes	% of Total
1977	17,500	6,741	39%	5,677	32%	3,101	18%	1,981	11%
1978	29,813	12,715	43%	10,576	35%	4,196	14%	2,326	8%
1979	38,558	12,080	31%	13,344	35%	7,426	19%	5,708	15%
1980	47,673	15,067	32%	12,743	27%	14,077	30%	5,786	12%
1981	37,746	12,387	33%	12,004	32%	9,025	24%	4,330	11%
1982	50,426	18,028	36%	17,847	35%	10,433	21%	4,118	8%
1983	45,150	14,760	33%	11,813	26%	11,046	24%	7,531	17%
1984	48,256	16,522	34%	16,235	34%	10,014	21%	5,485	11%
1985	41,095	16,768	41%	9,103	22%	11,392	28%	3,832	9%
1986	38,256	10,567	28%	13,728	36%	9,705	25%	4,256	11%
1987	36,848	8,539	23%	12,656	34%	9,613	26%	6,040	16%
1988	62,720	27,698	44%	12,986	21%	12,707	20%	9,329	15%
1989	67,351	33,732	50%	16,340	24%	9,607	14%	7,672	11%
1990	64,222	24,570	38%	23,649	37%	7,828	12%	8,175	13%
1991	60,621	24,265	40%	23,381	39%	4,585	8%	8,390	14%
77-91 Avg	45,749	16,963	36%	14,139	31%	8,984	20%	5,664	12%
1992	48,191	21,410	44%	10,894	23%	5,318	11%	10,569	22%
% Change	5%	26%		-23%		-41%		87%	

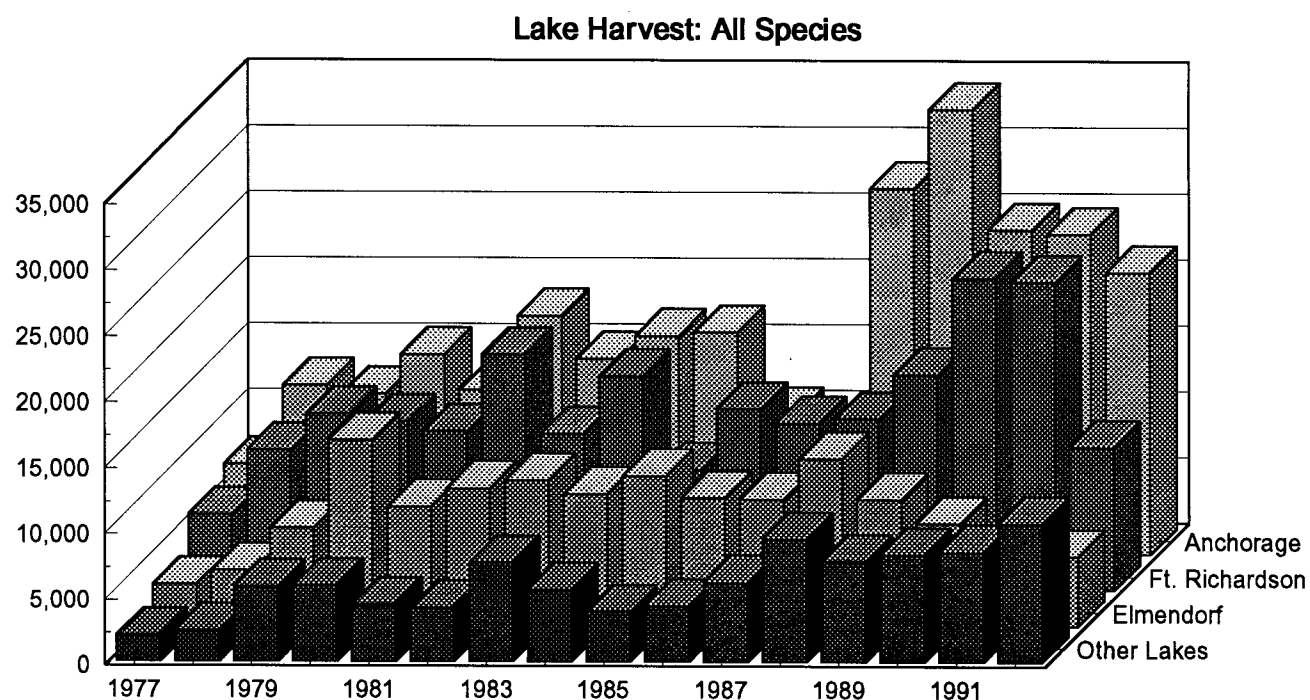




Table 10 and Figure 13. Anchorage area lakes rainbow trout sport fishing harvest, 1977-1992.

Year	Lakes Total	Anchorage	% of Total	Fort Richardson	% of Total	Elmendorf	% of Total	Other Lakes	% of Total
1977	17,184	6,631	39%	5,677	33%	3,082	18%	1,794	10%
1978	29,753	12,715	43%	10,533	35%	4,178	14%	2,327	8%
1979	38,296	12,080	32%	13,299	35%	7,217	19%	5,700	15%
1980	31,937	12,588	39%	11,409	36%	3,866	12%	4,074	13%
1981	30,532	10,758	35%	12,004	39%	4,694	15%	3,076	10%
1982	47,870	17,252	36%	17,847	37%	10,276	21%	2,495	5%
1983	44,312	14,561	33%	11,498	26%	11,025	25%	7,228	16%
1984	47,087	15,612	33%	16,173	34%	9,952	21%	5,350	11%
1985	40,628	16,768	41%	8,704	21%	11,323	28%	3,833	9%
1986	37,340	10,243	27%	13,236	35%	9,671	26%	4,190	11%
1987	34,550	6,982	20%	11,914	34%	9,613	28%	6,041	17%
1988	57,373	25,903	45%	12,150	21%	10,969	19%	8,351	15%
1989	52,072	21,631	42%	14,764	28%	8,791	17%	6,886	13%
1990	56,278	19,362	34%	22,132	39%	7,383	13%	7,401	13%
1991	48,819	16,097	33%	20,734	42%	4,585	9%	7,403	15%
77-91 Avg	40,935	14,612	36%	13,472	33%	7,775	19%	5,077	12%
1992	32,708	13,940	43%	8,185	25%	4,132	13%	6,451	20%
% Change	-20%	-5%		-39%		-47%		27%	

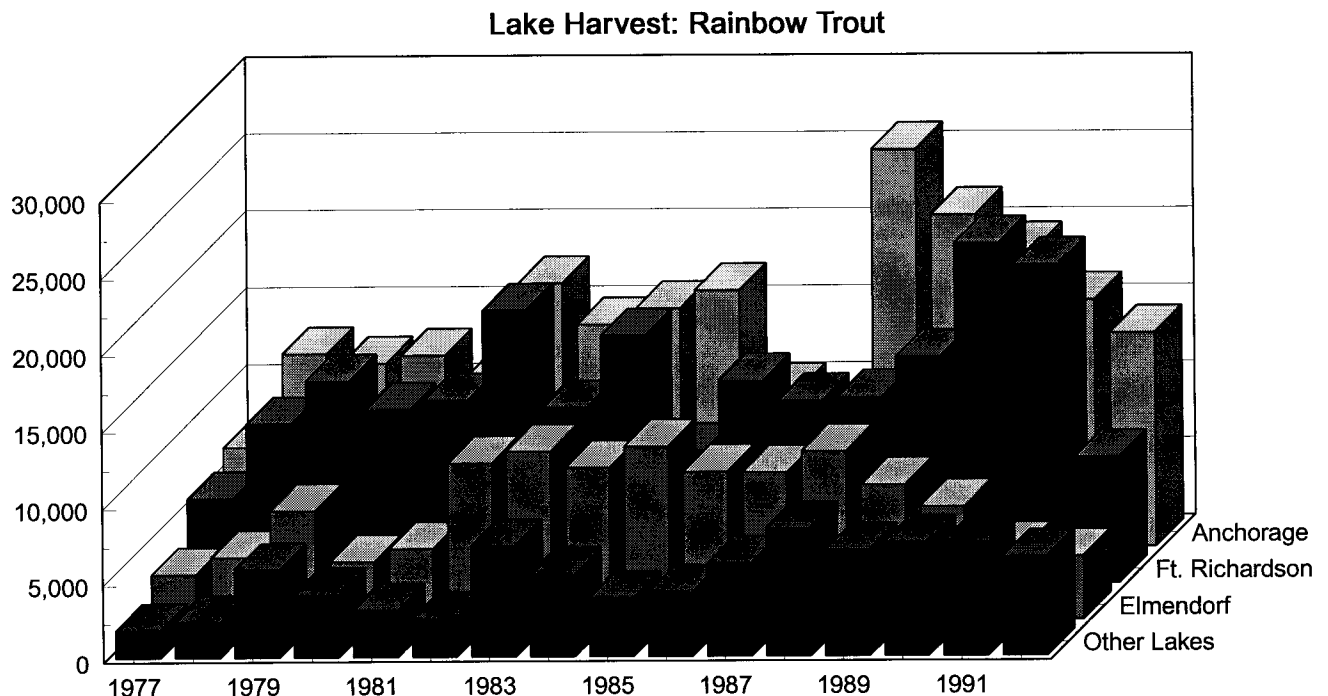
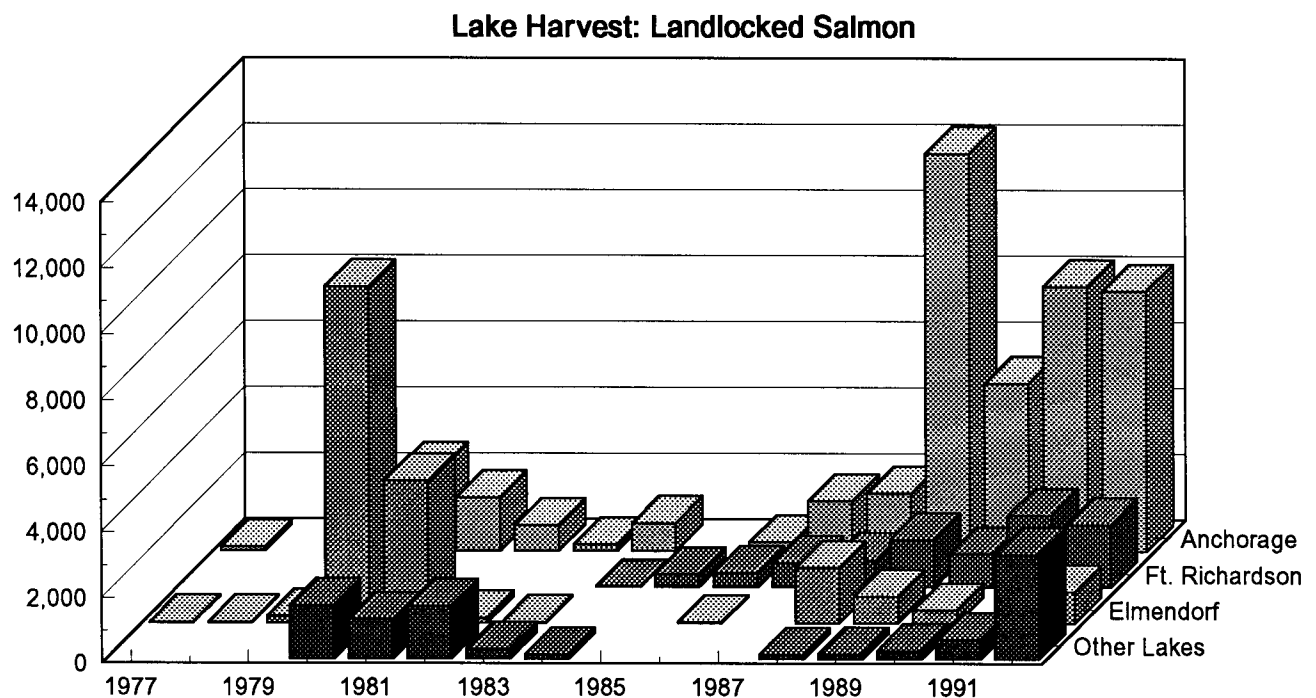


Table 11 and Figure 14. Anchorage area lakes landlocked salmon sport fishing harvest, 1977-1992.

Year	Lakes Total	% of Anchorage Total	Fort Richardson	% of Total	Elmendorf	% of Total	Other Lakes	% of Total
1977	129	110 85%	0	0%	19	15%	0	0%
1978	18	0 0%	0	0%	18	100%	0	0%
1979	209	0 0%	0	0%	209	100%	0	0%
1980	15,574	2,479 16%	1,248	8%	10,211	66%	1,636	11%
1981	7,167	1,629 23%	0	0%	4,331	60%	1,207	17%
1982	2,557	776 30%	0	0%	157	6%	1,624	64%
1983	524	199 38%	0	0%	21	4%	304	58%
1984	997	848 85%	25	3%	0	0%	124	12%
1985	399	0 0%	399	100%	0	0%	0	0%
1986	749	279 37%	436	58%	34	5%	0	0%
1987	2,263	1,521 67%	742	33%	0	0%	0	0%
1988	4,421	1,759 40%	836	19%	1,702	38%	124	3%
1989	14,483	12,063 83%	1,454	10%	807	6%	159	1%
1990	6,775	5,093 75%	1,022	15%	396	6%	264	4%
1991	10,817	8,030 74%	2,190	20%	0	0%	597	6%
77-91 Avg	4,472	2,319 44%	557	18%	1,194	27%	403	12%
1992	13,985	7,885 56%	1,914	14%	973	7%	3,213	23%
% Change	213%	240%	244%		-18%		698%	



### Recent Board of Fisheries Actions

No action was taken by BOF regarding Anchorage area lake stocking programs during their November 1992 meeting.

### Current Biological and Social Issues

Bag and possession limits for stocked rainbow trout are higher than those for wild stocks. As these fish are from hatchery stocking programs, there are no major biological issues regarding the Anchorage area stocked lake fisheries.

Northern pike have been illegally introduced into at least three Anchorage area lakes. Northern pike adults have been caught in Sand Lake and juveniles have been brought into the Anchorage ADF&G office, indicating that this species is successfully spawning. Several adults have been caught in Lower Fire Lake, and at least one adult northern pike was caught in Delong lake. As the northern pike population increases in these lakes, the success of the stocking program may diminish. The major concern is that additional illegal introductions may occur in other area lakes.

Social issues include litter, over limits due to lack of enforcement activities, and poor or restricted access to some area lakes.

### Ongoing Research and Management Activities

No specific research activities are currently being conducted on the Anchorage area lakes. Management activities consist of coordinating stocking schedules with hatcheries, and enforcement activities.

### Recommended Research and Management Activities

The rainbow trout stocking schedule for area lakes and streams was revised from once to twice annually in 1987. The success, measured in angler effort, of urban lake stocking programs for put-and-take fisheries is primarily dependent on catch rates. High catch rates generally lead to increased angler participation and satisfaction. The 1986 creel survey found that most anglers became dissatisfied when catch rates fell below one fish per hour.

The area's most heavily fished lakes (Jewel, Delong, Otter, and Cheney) should continue on the current stocking schedule. The first stocking should be conducted in May with approximately one-half of the total allocation of fish. The remaining allotment of fish should be incrementally stocked in these lakes every 4 to 6 weeks. This schedule should provide an initial pulse of fish for the spring fishery. Additional stockings should maintain angler satisfaction by keeping catch rates over one fish per hour through the season.

Several stocked lakes should be evaluated to determine the value of continued stocking. For example, Dishno Lake is infrequently stocked because the lack of access requires air drops rather than conventional stocking. In addition, this lake receives little effort because of the access difficulties. Other Anchorage area lakes should be evaluated for potential stocking to increase rainbow trout sport fishing opportunities. Several Portage Valley ponds have been incorporated into the 1993-1996 Stocking Plan (ADF&G 1993) and will provide additional sport fishing opportunities.

A handout describing Anchorage area sport fishing opportunities has been completed. It provides basic information on the waters and species stocked and a general location description of area lakes. While this handout has filled a void in the information available to area anglers, more detailed information is often requested. Preparation of a brochure detailing the specific location of each area lake, access site(s), available facilities, and bottom profiles is recommended.

Arctic grayling and Arctic char from Clear Hatchery are stocked in a few local lakes. While SHS reports small harvests of Arctic grayling from Lower Fire and Beach lakes (stocked with fingerlings), the harvest is sporadic from year to year. For Arctic char, all five stocked lakes have small, sporadic harvests. Test netting of these lakes to determine the success of these stocking efforts should be conducted if the harvest does not stabilize. Other area lakes should be evaluated as potential stocking sites for these species to increase and diversify angling opportunities.

## ANCHORAGE CHINOOK SALMON FISHERIES

### Areawide Assessment

While several Anchorage area streams support wild chinook salmon stocks, none are large enough to support a sport fishery. As a result, sport fishing for chinook salmon has been closed with few exceptions. Wild stock chinook salmon runs are found in Campbell, Bird, Indian, Rabbit, Peters, and Ship creeks and Eagle River.

Recreational chinook salmon fishing in the Anchorage area began in 1987 with the 2 days per week opening of Ship Creek. This fishery was expanded to 7 days per week in 1991, and over 1,000 chinook salmon were harvested. In 1992, the Ship Creek harvest exceeded 2,000. A similar fishery was developed in Eagle River that opened in 1992. Minimal harvest and participation were documented in 1992 as only a small return from stocked smolt was expected. All other Anchorage area streams are closed to chinook salmon sport fishing.

Chinook salmon return to Anchorage area streams from late May through early July. Due to the timing of these returns, commercial catches of chinook salmon bound for Anchorage area streams are small; most are harvested in the June Northern District commercial set net fishery.

### Ship Creek Chinook Salmon

#### Background and Historical Perspective:

Before World War II, the Ship Creek wild stock chinook salmon run supported sport, personal use, and subsistence fisheries. However, dams were constructed in the lower 11 miles of the creek during the 1940s and 1950s for both power generation and a water source for MOA and the military bases. This development substantially reduced Ship Creek wild salmon runs. Attempts to increase Ship Creek salmon runs occurred from 1966 through 1980 when chinook salmon of Alaska and Oregon origin (Miller 1990) were stocked. During this period, eggs obtained from these stocks were incubated at Fire Lake Hatchery. The resultant fry were reared to smolt in the Fort Richardson Hatchery pond

before release. These releases were generally unsuccessful as consistent numbers of returning adults could not be established. More consistent returns of chinook salmon to Ship Creek have been established since 1985 due to smolt releases from the Elmendorf Hatchery using wild Ship Creek chinook salmon brood stock.

Ship Creek was open to chinook salmon sport fishing from 1957 through 1959, but remained closed from 1960 through 1969. Chinook salmon fishing was allowed during selected periods in Ship Creek downstream of the Chugach Power Plant dam from 1970 through 1972. From 1973 through 1986, the creek was closed to chinook salmon sport fishing due, in part, to low chinook salmon abundance throughout northern Cook Inlet in the early and mid-1970s. Beginning in 1987, through increased returns resulting from annual stocking efforts, the lower portion of Ship Creek downstream of the Chugach Power Plant dam was re-opened to chinook salmon sport fishing 2 days per week for 5 consecutive weeks in June and July.

In recent years, hatchery produced chinook salmon runs to Ship Creek have provided a unique opportunity for sport anglers to fish in an urban setting. The chinook salmon run is a result of an annual release of approximately 105,000 smolt raised at Elmendorf Hatchery. The periods open to fishing were initially limited to 2 days per week to allow for an orderly fishery and insure that sufficient fish were available for upstream viewing opportunities and brood stock needs. The season was recently expanded to 7 days a week, 1 January through 13 July. The fishery occurs during June and early July in the lower 1 mile of Ship Creek, downstream of the Chugach Power Plant dam. The shorelines of the area open to chinook salmon fishing are owned and managed by ARR. A king salmon "fishing derby" began in 1993 during June. This derby was well received by the angling public and may become an annual event.

#### Recent Fishery Performance:

Harvest and effort of the Ship Creek sport fishery are estimated in SHS (Mills 1979-1993). The sport harvest of chinook salmon in Ship Creek increased over 500% from 437 fish in 1987 to 2,282 fish during 1992 (Table 12, Figure 15). Fishing effort in Ship Creek has also increased. The 1992 effort was 130% higher than in 1991. Effort levels continue to increase as the popularity of this fishery grows. Runs to Ship Creek are predicted to average approximately 3,000 chinook salmon annually by 1994 when the full complement of age classes from the smolt releases return.

The 1993 Ship Creek chinook salmon escapement was estimated at 706 fish (Appendix D1). Approximately 100 fish were taken for Elmendorf Hatchery brood stock requirements while the remainder spawned naturally downstream of the hatchery and provided viewing opportunities.

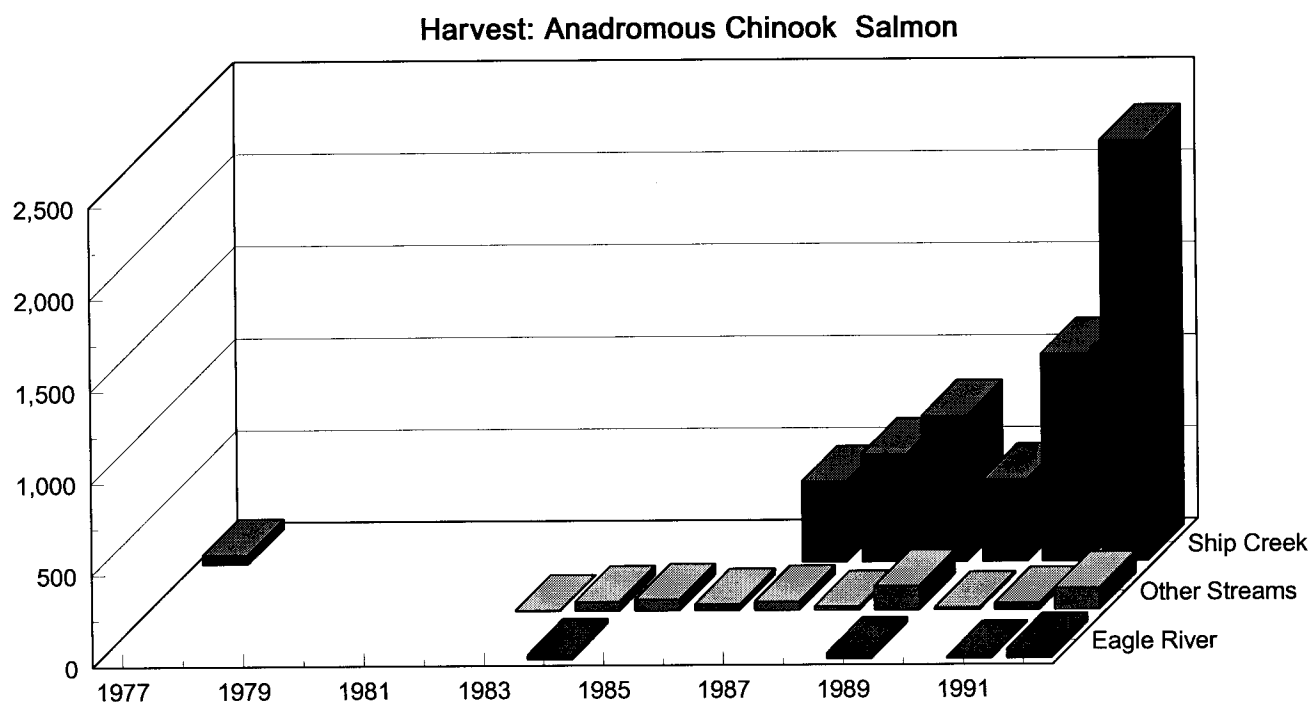
#### Management Objectives:

The management objectives for the Ship Creek chinook salmon fishery are to (1) maintain or increase current angler effort through smolt stocking, and (2) achieve the 300 chinook salmon escapement goal above the Chugach Power Plant dam. This escapement goal includes 100 chinook salmon needed for brood stock requirements and a minimum of 200 fish necessary to provide natural spawning

Table 12 and Figure 15. Anchorage area anadromous chinook salmon\* sport fishing harvest, 1977-1992.

Year	Area Total	Ship Creek	% of Total	Eagle River	% of Total	Other Streams	% of Total
1977	52	52	100%	0	0%	0	0%
1978	0	0	0%	0	0%	0	0%
1979	0	0	0%	0	0%	0	0%
1980	0	0	0%	0	0%	0	0%
1981	0	0	0%	0	0%	0	0%
1982	0	0	0%	0	0%	0	0%
1983	2	0	0%	0	0%	2	100%
1984	74	0	0%	25	34%	49	66%
1985	61	0	0%	0	0%	61	100%
1986	33	0	0%	0	0%	33	100%
1987	485	437	90%	0	0%	48	10%
1988	606	587	97%	0	0%	19	3%
1989	950	792	83%	28	3%	130	14%
1990	457	445	97%	0	0%	12	3%
1991	1,169	1,127	96%	6	1%	36	3%
77-91 Avg	259	229	38%	4	2%	26	27%
1992	2,448	2,282	93%	48	2%	118	5%
% Change	844%	895%		1120%		354%	

\* Includes anadromous chinook salmon less than 16 inches in length



and viewing opportunities in Ship Creek. Present regulations should achieve these management objectives.

#### Recent Board of Fisheries Actions:

No action was taken during the November 1992 BOF meetings regarding Ship Creek chinook salmon fishery.

#### Current Biological and Social Issues:

Besides the sport harvest, there is a significant but unknown number of chinook salmon illegally harvested by people camping along the Ship Creek greenbelt between the Chugach Power Plant dam and Elmendorf Hatchery. It is believed that this illegal harvest does not jeopardize the brood stock and viewing requirements for Ship Creek chinook salmon at this time. However, in years of low instream abundance, this illegal harvest could significantly affect the Ship Creek chinook salmon escapement.

The Ship Creek chinook salmon sport fishery has evolved in recent years; both effort and harvest have increased. This trend of increased angler participation within such a limited area has created crowding, sanitation, and parking problems along the creek and adjacent ARR and MOA property. As this fishery occurs in a highly industrial area of the city, potential conflicts exist between land managers and sport anglers. Increased opportunity through liberalization of the season helped reduce the peak crowding problems observed during the 1990 sport fishery. In addition, development proposed for lower Ship Creek includes improvements to access, parking, and trails. These improvements will address some of the social issues caused by this fishery.

There has been public concern over water quality and the suitability of Ship Creek fish for human consumption. Water quality in Ship Creek has been monitored by MOA in recent years. While water quality has improved, pollution from urban activities and development still affects Ship Creek. Most Ship Creek salmon are raised to smolt stage in clean water at Elmendorf Hatchery before emigrating to Cook Inlet marine waters. Upon entering Ship Creek as adult salmon, they have ceased feeding. Therefore, ingestion of pollutants does not occur. A study conducted by USFWS during 1986 estimated that pollutant levels in naturally produced juvenile Ship Creek salmon (primarily PCB's) may significantly reduce their survivability. Sampling by the MOA has shown that Ship Creek water periodically contains high levels of fecal coliform. Proper cooking of salmon harvested from Ship Creek eliminates any potential health risks from this pollution.

#### Ongoing Research and Management Activities:

No research activities are currently in progress or planned for the Ship Creek chinook salmon fishery.

Management activities include a variety of tasks necessary to maintain the fishery. Chinook salmon escapements are monitored by hatchery personnel passing fish through a holding box located on a fish pass at the upstream end of the Chugach Power Plant dam as well as by foot surveys. Foot escapement counts are conducted to assure attainment of the 300 chinook salmon escapement goal. Continued coordination with the primary land manager, ARR, is essential

to keep the program operating smoothly. This coordination consists of determining facilities (parking, bathrooms, and trash receptacles) and signage needs necessary to control angler activities in a manner consistent with ARR operations. Enforcement activities are conducted during the Ship Creek chinook salmon fishery.

#### Recommended Research and Management Activities:

The following activities are recommended for Ship Creek:

1. Ground surveys of chinook salmon escapement during the peak of the return to monitor the success of the present stocking program and insure that sufficient fish are available to provide for brood stock requirements, natural spawning, and viewing opportunities.
2. Management activities during peak periods of the sport fishery should be directed at minimizing potential conflicts between industrial activities in lower Ship Creek and sport anglers. These activities include assisting area land managers in signing, enforcement, and angler education.
3. Efforts should be continued to insure that adequate access, parking, and sanitation facilities are available. As planning and development of the port area continues, an active departmental role should be included to insure the development of this fishery.
4. Water quality standards should be maintained with efforts directed at improving water quality and insuring sufficient water levels throughout the year to support natural fish production.
5. Evaluation of the potential for increased natural production by allowing salmon passage above the upper Ship Creek dams is recommended.
6. Improvements to the Elmendorf Hatchery viewing area are recommended. Over 60,000 people a year observe spawning salmon at this location. Gravel deposition during high water events has filled the pool located immediately downstream of the hatchery dam and reduced the size of the holding area near the viewing area. Re-establishment of the holding area and development of improved access for the handicapped are recommended.
7. The potential development of the old Ship Creek boat launch is being evaluated. This development could increase angler participation by creating opportunities to drift fish. Also recommended is improved access for shore and handicapped anglers as part of the department's access program.

#### Eagle River Chinook Salmon

##### Background and Historical Perspective:

The Eagle River drainage originates in Chugach Mountains with most flow contributed by Eagle Glacier. The lower portion of the river flows through



flats on Fort Richardson Army Base that have been used, historically, as a large weapon test firing range and impact area. All access to Eagle River from the mouth upstream to the ARR bridge, approximately 2 miles, is restricted due to the presence of unexploded ordinance. That portion of Eagle River upstream from the railroad bridge to the Glenn Highway bridge is accessed through Fort Richardson. Upstream of Glenn Highway, the river meanders through dedicated greenbelt as part of Chugach State Park. Access to Eagle River is limited to a few sites. These access sites include (1) Glenn Highway campground located immediately upstream of Glenn Highway, (2) Briggs Bridge crossing Eagle River from Hiland Road to Eagle River Loop Road, and (3) a parking area and boat launch site located at mile 7.4 of Eagle River Road. The current non-angling use pattern for Eagle River drainage includes hiking and whitewater float trips.

The Eagle River drainage was closed to chinook salmon fishing from 1964-1991 (Appendix A2). Wild stock chinook salmon return to the Eagle River drainage during June and early July. Most chinook salmon spawn in the South Fork of Eagle River downstream of the barrier falls. Surveys of chinook salmon escapement in Eagle River have documented from 28 to 513 fish annually since 1963 (Appendix D2). These numbers of returning adult salmon are too small to support a viable sport fishery.

In 1991, an annual stocking program was initiated in Eagle River with approximately 105,000 chinook salmon smolt of Ship Creek origin. Expected returns to Eagle River from these stocking efforts are 3,000 fish annually beginning in 1995.

#### Recent Fishery Performance:

In 1992 the Eagle River chinook salmon fishery was opened for the first time since 1963. Approximately 300 wild stock chinook salmon and 1,000 hatchery chinook salmon were available to sport anglers in 1992 based on projected returns. Observations during an informal creel survey, part of the 1992 cooperative DNR/ADF&G Eagle River access study, indicated low angler participation and harvest. Three locations were surveyed: (1) Eagle River campground, (2) Briggs Bridge, and (3) North Fork access trail. Boat anglers were also interviewed. Most angler effort occurred at the Eagle River campground site and all fish harvested were observed at this site. Most fish were fairly large indicating that this harvest was primarily from the wild stock as those expected to return from the stocking efforts would have been small 1- and 2-ocean fish (jacks). SHS estimated the 1992 Eagle River chinook salmon harvest at 48 fish.

Observations during 1990 and 1992 indicated that a significant illegal harvest occurs in the clear water of South Fork. The South Fork chinook salmon escapement count in 1993 was 378 fish, and exceeded the 300 escapement goal. Therefore, in spite of legal and illegal harvests, adequate returns made it to the spawning grounds. Expected returns for 1994 are greater with approximately 300 wild and 1,500-2,000 hatchery fish estimated to be available to sport fishers. It is anticipated that up to 3,000 stocked chinook salmon will return annually by 1995 based on current stocking levels.

### Management Objectives:

The Eagle River chinook salmon fishery was established to provide quality chinook salmon fishing close to Anchorage. A goal of increasing angler effort by approximately 6,000 angler days as measured by SHS was set to achieve the objective of generating a sufficient increase in angler effort to make the stocking program cost effective. In addition, the fishery will be managed to maintain historical escapement levels, continue natural production, and provide viewing opportunities. An escapement goal of 300 king salmon was established for South Fork Eagle River based on historical escapement counts.

### Recent Board of Fisheries Actions:

During the 1992 November BOF meeting, action was taken to expand the Eagle River chinook salmon sport fishing season and reduce the area open to fishing. The new regulations opened the season 24 hours per day for a 30 day period starting on the Saturday before Memorial Day, an increase from the 3 days per week opening in 1992. The area opened to chinook salmon fishing was from the Bailey Bridge on Fort Richardson upstream to a department marker placed on the river bank near mile 7.4 of Eagle River Road. In addition, areas that were open in 1992 were closed in 1993: the area located 100 yards on both sides of the confluence of South Fork and Eagle River mainstem was closed to all fishing from 1 June to 14 August; the North Fork was closed to all fishing during king salmon season (Figure 16), and Eagle River mainstem downstream from North Fork to a department marker placed on the river bank near mile 7.4 of Eagle River Road was closed to all fishing.

The Superintendent of Chugach State Parks, DNR, requested that BOF limit shore fishing to specific areas and limit fishing in the remaining portion of the river from gravel bars and boats only. ADF&G Commissioner, Carl Rosier, made it clear that ADF&G viewed this as a land management issue and did not support using sport fishing regulations as a land management tool.

### Current Biological and Social Issues:

Chinook salmon returning to Eagle River will be the result of annual stocking efforts and, to a lesser extent, natural production. If full returns from stocking (approximately 3,000 fish annually) are achieved in 1995, it is recommended that anglers be allowed to harvest chinook salmon in excess of viewing and natural escapement requirements to allow optimum utilization of the hatchery fish. If expected returns are not achieved in 1995, the stocking program will be re-evaluated.

Most of the sport fishery occurs within the Eagle River greenbelt. Concerns about the Eagle River chinook salmon sport fishery include trespass, crowding, habitat degradation, and sanitation. DNR has proposed, and is working towards, improving access sites, parking areas, and litter and sanitation facilities.

DNR has identified specific guidelines for fishing activities in Eagle River, and allows sport fishing from banks at three locations within the greenbelt. These areas are: the campground area upstream from the Glenn Highway bridge, the area approximately 100 yards on both sides of Briggs bridge, and the area accessed from mile 7.4 Eagle River Road approximately 100 yards downstream of

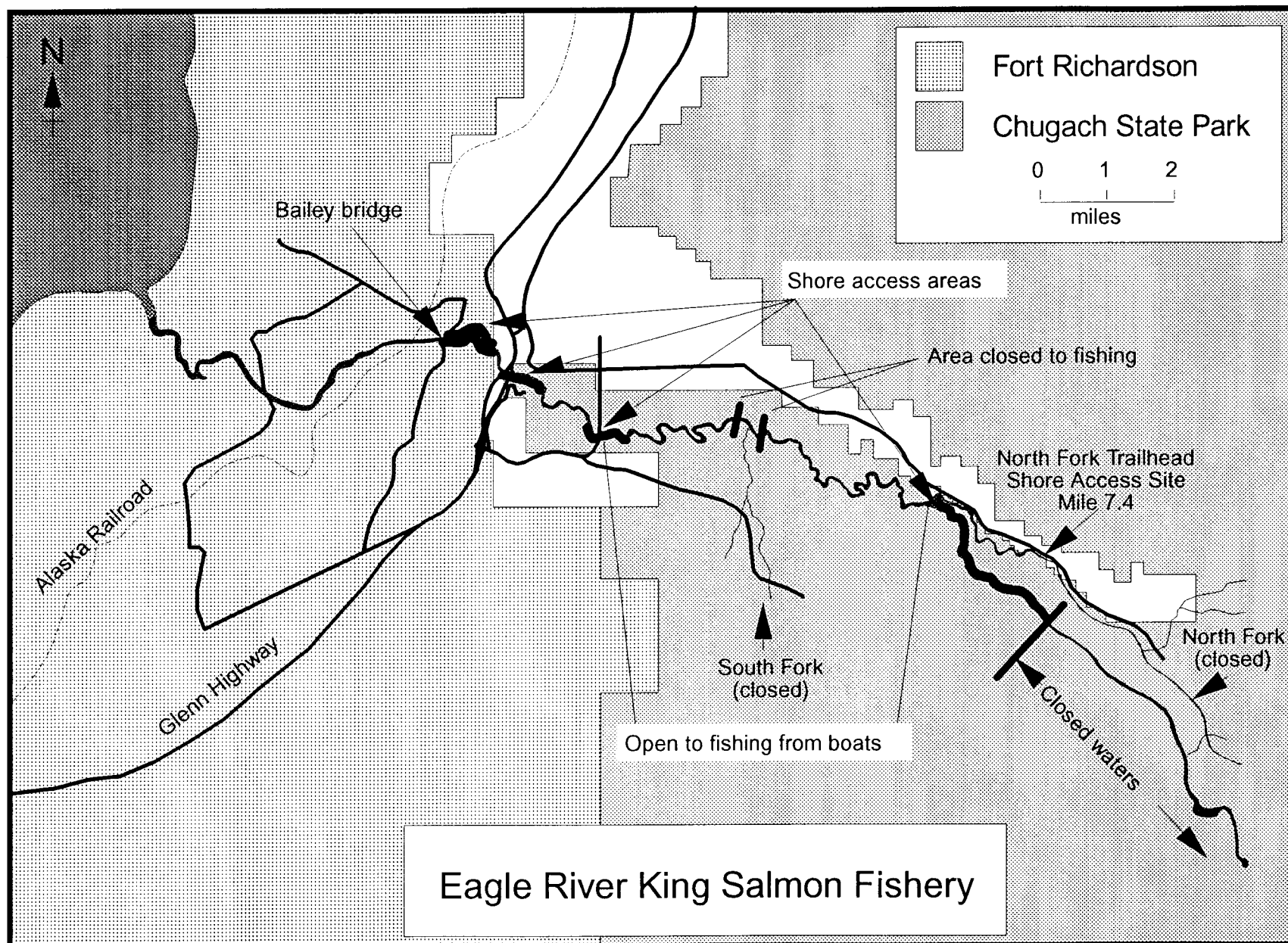


Figure 16. Map of the Eagle River chinook salmon fishery, 1993.

the confluence of Eagle River and North Fork. In all other areas within the park, fishing is limited to gravel bars or from nonmotorized boats. Fishing on Fort Richardson Army Base is allowed from Bailey bridge upstream to a department marker at the base boundary. A pass, available at entrance guard stations, is required to fish on base.

#### Ongoing Research and Management Activities:

No specific research projects are planned for Eagle River.

Management activities for the Eagle River chinook salmon fishery include conducting chinook salmon escapement counts in South Fork to assure achievement of the 300 fish escapement goal. In addition, area staff will visit the fishery frequently to evaluate participation, document impacts on riparian habitat near the fishery, and enforce Fish and Game regulations.

#### Recommended Research and Management Activities:

Further efforts should be made to insure that adequate access, parking, and sanitation facilities are available in the area open to fishing. As planning and development of the park area continues, department personnel should participate to insure development of this fishery.

Although it is impossible to foresee all the potential situations that may arise in Eagle River, one area needs attention. A drift boat sport fishery is expected to develop. DNR completed a parking and boat launch area during 1990 at approximately mile 7.4 of Eagle River Road. This site is used as a starting point for float trips down Eagle River. In the past, the only pullouts for floaters upstream of the Fort Richardson bridge were the Glenn Highway campground and a canoe portage trail and pullout just above the lower rapids. Eagle River, in the reach just upstream of the campground, has class III/IV rapids under certain water conditions. Most boats using the river are not equipped to handle white water conditions. The completion of a pullout site near Briggs Bridge in 1993 will allow anglers with smaller rafts, canoes, and drift boats to leave the river without having to travel through the rapids.

#### Other Area Chinook Salmon Streams

Chinook salmon return in very small numbers to several other Anchorage area streams. Escapement surveys have been conducted periodically in Bird and Campbell creeks (Appendices D3 and D4). Small numbers of chinook salmon have also been reported in Rabbit, Indian, California (a tributary to Glacier Creek in Girdwood), and Peters creeks. All of these streams are closed to chinook salmon sport fishing. In most streams, illegal harvests of returning chinook salmon occur.

#### Campbell Creek:

Campbell Creek, the largest free flowing stream in the Anchorage metropolitan area, supports a small chinook salmon run. This run averaged approximately 250 fish annually from 1961-1992. In 1993, 937 chinook salmon were observed during foot surveys (Appendix D4). Chinook salmon sport fishing has not been permitted in Campbell Creek since statehood (Appendix A3), and there are no plans to open a chinook salmon sport fishery in the future.

The upper reach of Campbell Creek is composed of two tributaries, North and South Forks, which drain Chugach Mountains east of Anchorage. Both forks flow through canyons in their upper reaches that are impassable to upstream fish migration. Downstream of the canyons, these tributary streams flow approximately 10 miles through undeveloped forests and wetlands before converging upstream of Lake Otis Parkway. Campbell Creek flows through MOA greenbelt from the confluence of the forks downstream to Cook Inlet. It is in this reach of Campbell Creek that the greatest urbanization impacts have occurred.

Campbell Creek once supported large runs of chinook salmon. However, byproducts of extensive urbanization including reduced water quality, siltation, rechannelization, and poaching have reduced chinook salmon production in the drainage. MOA has made an effort to obtain and preserve the riparian habitat of Campbell Creek from Lake Otis Parkway downstream to Campbell Lake. In 1981, BLM transferred title to the 4,000 acre Campbell Tract (Bicentennial Park) to MOA. This area comprises the primary Campbell Creek salmon spawning and rearing habitat.

#### Bird Creek:

Limited counts of chinook salmon returning to Bird and Penguin creeks in recent years indicate an annual run of less than 100 chinook salmon. A series of falls in Bird Creek approximately one-half mile upstream of the confluence with Penguin Creek presents a complete barrier to upstream migration. Most chinook salmon are observed within one-eighth mile of the first waterfall in Bird Creek. This area comprises the primary spawning and rearing habitat for chinook salmon. Few chinook salmon are observed in Penguin Creek. In 1993, a total of 72 chinook salmon were counted in the Bird Creek drainage.

#### Rabbit, Indian, California, and Peters Creeks:

Each of these streams supports annual chinook salmon runs of <25 fish. All are closed to chinook salmon fishing. The Rabbit Creek chinook salmon run provides viewing opportunities for Potter Marsh visitors in June and July.

#### Recommended Research and Management Activities:

Opportunities for viewing spawning chinook salmon should continue to be developed in area streams. Division of Sport Fish staff are participating in the development of the Potter Marsh Coastal Wildlife program. Increased enforcement activities along streams by department personnel should continue. Regulations currently allow anglers to catch and harvest chinook salmon <16 inches in length in these systems. Although chinook salmon <16 inches have not been observed during escapement surveys of area streams, anglers are using this regulation to fish for larger chinook salmon. It is recommended that a proposal to close all area streams, except Ship Creek and Eagle River, to all chinook salmon sport fishing be prepared for consideration by BOF.

As development and urbanization continue to affect area streams, efforts should continue to maintain and improve water quality and fish habitat to insure long-term productivity. Staff should maintain participation in the Anchorage Water Quality Council monthly meetings. Evaluation of Bird Creek as a site for chinook salmon enhancement through annual smolt stocking is recommended.

## ANCHORAGE COHO SALMON FISHERIES

### Areawide Assessment

While wild stock coho salmon are present in several Anchorage area streams, few native populations are large enough to support significant sport fisheries. As a result, Anchorage area sport fishing opportunities for this species have been limited. Streams supporting annual runs of coho salmon include Campbell, Rabbit, Bird, Ship, Peters, Glacier, California, and Portage creeks and Eagle, Twentymile, and Placer rivers. According to SHS, the largest Anchorage area coho salmon sport fisheries occur in Bird and Ship creeks and Twentymile River (Table 13). Twentymile River supports wild coho salmon, Bird Creek runs are both wild stock and a result of hatchery production, and Ship Creek coho salmon are primarily hatchery produced.

An urban coho project was initiated in 1991 to provide additional recreational fishing opportunities by stocking coho salmon smolt in several other urban area streams. This program identified seven streams to receive stocked anadromous coho salmon in the Northern Cook Inlet (NCI) area. Three of these streams, Ship, Bird and Campbell creeks, are in the Anchorage area. The other four, Fish, Wasilla and Cottonwood creeks and Little Susitna River, are in the Palmer/Wasilla urban areas. Of the Anchorage area streams, Ship Creek already received stocked fish, but the numbers were increased to provide additional angling opportunities. Bird Creek, which had a limited wild coho salmon fishery was augmented through stocking to provide additional opportunities. Finally, Campbell Creek was stocked to provide a new fishery that was opened in 1993. Stocking efforts were conducted in Ingram Creek in an attempt to establish a coho salmon sport fishery but poor returns caused this program to be discontinued. Anchorage area streams currently closed to coho salmon fishing are Potter and Rabbit creeks.

The area coho salmon sport harvest averaged approximately 1,500 fish annually from 1977-1985. From 1986-1992, the sport harvest increased to over 4,400 fish annually (Table 13, Figure 17). Recent increases in Anchorage area coho salmon sport harvest are due to increased sport fishing effort on Ship, Campbell, and Bird creeks and Twentymile River. Coho salmon return to area streams from late July through September. Commercial catches of coho salmon bound for Anchorage area streams in the UCI mixed stock commercial fisheries are assumed to be 50% annually based on run timing.

### Ship Creek Coho Salmon

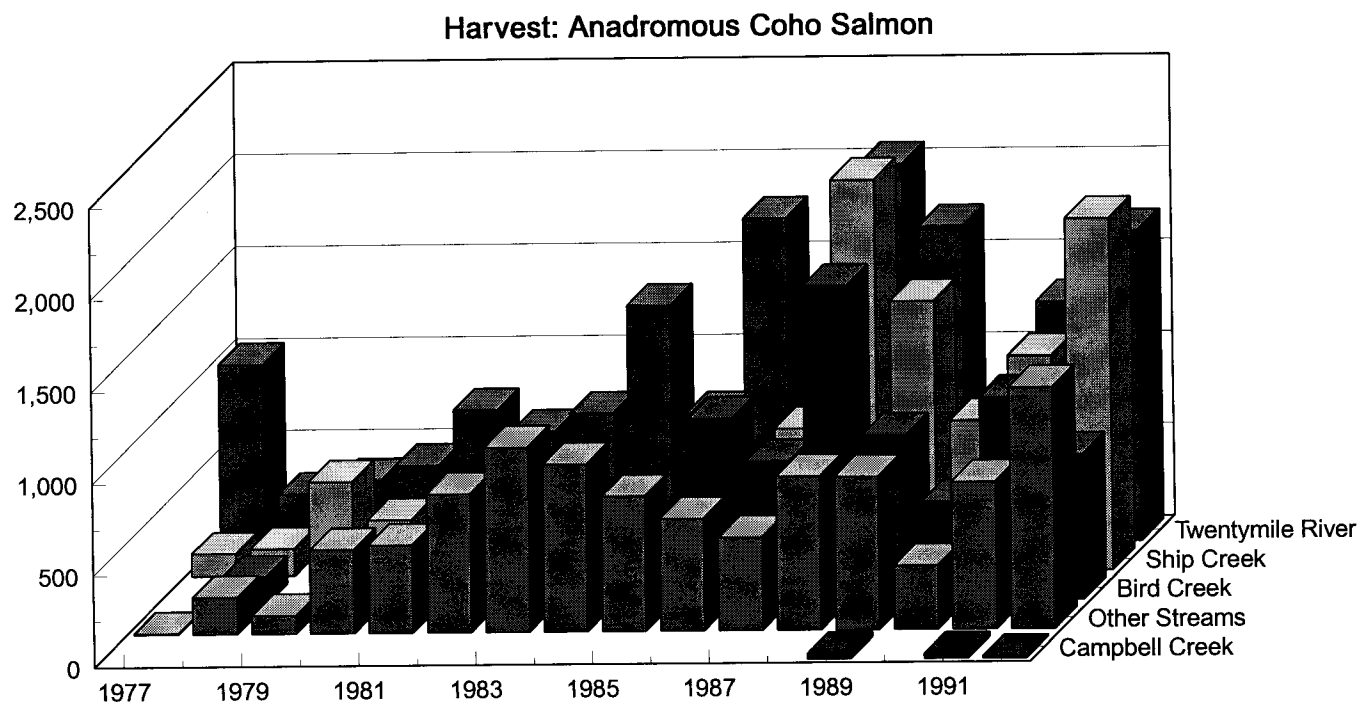
#### Background and Historical Perspective:

Ship Creek's wild coho salmon run supported sport, personal use, and subsistence fisheries before World War II. The dams constructed in the lower 11 miles of creek for power generation and as a water source for MOA and military during the 1940s and 1950s significantly reduced the Ship Creek runs. To rebuild these runs, the creek was stocked annually with coho salmon smolt from 1968-1977. These efforts proved unsuccessful in providing consistent numbers of returning adults. Nine different brood stocks from Ship Creek, Bear Lake (near Seward), Kodiak, Washington, and Oregon (Miller 1990) were used. Eggs obtained from these stocks were incubated at Fire Lake Hatchery and the resultant fry were reared to smolt in the Fort Richardson Hatchery

Table 13 and Figure 17. Anchorage area anadromous coho salmon sport fishing harvest, 1977-1992.

Year	Area Total	Ship Creek	% of Total	Bird Creek	% of Total	Campbell Creek	% of Total	Twentymile River	% of Total	Other Streams	% of Total
1977	1,127	125	11%	0	0%	0	0%	996	88%	6	1%
1978	792	151	19%	151	19%	0	0%	289	36%	201	25%
1979	974	512	53%	0	0%	0	0%	362	37%	100	10%
1980	1,222	301	25%	26	2%	0	0%	439	36%	456	37%
1981	1,474	220	15%	38	3%	0	0%	737	50%	479	32%
1982	1,571	168	11%	31	2%	0	0%	618	39%	754	48%
1983	1,905	94	5%	94	5%	0	0%	712	37%	1,005	53%
1984	2,843	312	11%	324	11%	0	0%	1,297	46%	910	32%
1985	2,052	236	12%	373	18%	0	0%	709	35%	734	36%
1986	3,458	89	3%	994	29%	0	0%	1,765	51%	610	18%
1987	3,096	779	25%	761	25%	0	0%	1,050	34%	506	16%
1988	6,730	2,128	32%	1,710	25%	0	0%	2,055	31%	837	12%
1989	4,940	1,467	30%	899	18%	28	1%	1,715	35%	831	17%
1990	2,488	818	33%	535	22%	0	0%	787	32%	348	14%
1991	4,393	1,168	27%	1,099	25%	25	1%	1,302	30%	799	18%
77-91 Avg	2,604	571	21%	469	14%	4	0%	989	41%	572	25%
1992	5,698	1,911	34%	785	14%	8	0%	1,684	30%	1,310	23%
% Change	119%	235%		67%		126%		70%		129%	

\* Data not broken out by site but included in total



pond. No coho salmon smolt were released in Ship Creek from 1978-1986. Beginning in 1987, the department began annual stocking of coho salmon smolt in Ship Creek using fish of Ship Creek origin reared at Elmendorf Hatchery. These efforts have provided consistent coho salmon runs that support the recreational fishery.

Ship Creek was opened to coho salmon sport fishing from 1957-1959, and again from 1964 to present (Appendix A1). Currently, only the reach downstream of the Chugach Power Plant dam is open to salmon fishing. Hatchery supported coho salmon returns to Ship Creek in recent years have provided a unique opportunity for anglers to fish for and harvest coho salmon in an urban setting. These coho salmon are the result of an annual release of smolt raised at Elmendorf Hatchery. The fishery occurs during August and early September in the lower 1 mile of Ship Creek below the Chugach Power Plant dam. Most of the land surrounding the area open to salmon fishing is owned and operated by ARR.

#### Recent Fishery Performance:

Performance of the Ship Creek sport fishery has been estimated in SHS (Mills 1979-1993) since 1977. The Ship Creek coho salmon sport harvest has increased to 1,500 fish annually from 1988-1992 (Table 13, Figure 17). Increases in harvest, effort levels, and popularity are expected to continue.

The 1993 Ship Creek coho salmon escapement through the fish pass was 370 fish, exceeding the 200 fish BEG. Foot surveys documented 47 coho salmon in Ship Creek (Appendix D1). The brood stock for Ship Creek was changed in 1993 from Ship Creek fish to Little Susitna River fish as it is believed that Little Susitna River coho salmon will provide more consistent returns. Therefore, no coho salmon were taken for Elmendorf Hatchery brood stock requirements. All coho salmon that were being held for brood stock were released, except those with missing adipose fins. Coho salmon with missing adipose fins were killed as part of the coded wire tag recovery program.

#### Management Objectives:

The Ship Creek coho salmon fishery management objectives are to maintain or increase current angler effort through annual smolt stocking and achieve the 200 fish escapement goal above the Chugach Power Plant dam. Coho salmon are no longer needed for brood stock requirements. Present regulations provide for the harvest of coho salmon in excess of spawning and viewing requirements and allow optimum utilization of Ship Creek coho salmon.

#### Recent Board of Fisheries Actions:

No action was taken by BOF in the November 1992 meeting.

#### Current Biological and Social Issues:

The escapement goal of 200 fish was achieved in 1993. The fishery should continue to be monitored to assure adequate escapement. This may require closing the fishery through emergency order.



The Ship Creek coho salmon sport fishery has evolved in recent years. Effort has increased and anglers have become more effective at harvesting returning fish. This trend of increasing angler participation within a limited area creates crowding, sanitation, and parking problems along the creek and adjacent ARR and MOA property.

Similar to the chinook salmon fishery, the coho salmon sport fishery takes place in a highly industrialized area of the city. The potential for conflicts exists between sport anglers and land managers including ARR and MOA. Sanitation and parking facilities in place for the chinook salmon fishery remain in place for the coho salmon fishery. Development proposed for lower Ship Creek includes access improvements, parking, and trails.

There is some concern over water quality and the suitability of fish taken from Ship Creek for human consumption. Water quality in Ship Creek has been monitored by MOA in recent years. While water quality has improved, pollution from urban activities and development still affects Ship Creek. A study conducted by USFWS during 1986 estimated that pollutant levels in juvenile salmon in Ship Creek (primarily PCB's) may significantly reduce the survival of emigrating smolt which result from natural production. However, salmon returning to Ship Creek pose no health threats. These salmon are raised to smolt in clean water at Elmendorf Hatchery and spend very little time in Ship Creek before emigrating into Cook Inlet marine waters. Feeding by returning adult salmon has ceased upon entering Ship Creek, therefore ingestion of pollutants does not occur. Sampling by MOA has shown that Ship Creek water periodically contains high levels of fecal coliform. However, proper cooking of salmon harvested from Ship Creek eliminates potential health risks from pollution.

#### Ongoing Research and Management Activities:

Management activities consist of a variety of tasks necessary to maintain the fishery. Escapement counts are conducted annually to assure achievement of the escapement goal. Coordination with ARR occurs to keep the program operating smoothly. This coordination consists of determination of necessary facilities (parking, bathrooms, and trash receptacles) and signs needed to control angler activities in a manner consistent with ARR operations. Enforcement activities are also conducted during the Ship Creek fisheries.

Coho salmon escapements are monitored by hatchery personnel passing fish through a holding box located on a fish pass at the upstream end of the Chugach Power Plant dam as well as by foot surveys.

#### Recommended Research and Management Activities:

The following objectives are recommended for Ship Creek:

1. Ground surveys of coho salmon escapement during the peak of the run to insure that sufficient fish are available for natural spawning and viewing opportunities.
2. Management during peak periods of the sport fishery should be directed at minimizing potential conflicts between industrial activities in lower Ship Creek and sport anglers. These activities

should include assisting land managers in signing, enforcement, and angler education.

3. Further efforts should be conducted to insure that adequate access, parking, and sanitation facilities are available in the open fishing area. As planning and development of the port area continues, an active departmental role should be included to allow this fishery to develop.
4. Water quality standards should be maintained with efforts directed at improving water quality and insuring sufficient water throughout the year to support natural fish production.
5. Evaluate the potential for increased natural production by allowing fish passage above the upper dams.
6. Development of the old Ship Creek boat launch would increase angler participation by creating opportunities to drift fish. Also recommended is improved access for shore and handicapped anglers.

#### Campbell Creek Coho Salmon

##### Background and Historical Perspective:

Wild coho salmon return to Campbell Creek during August and September. The number of returning adults was insufficient to support a viable sport fishery. Most of the wild stocks migrate upstream of Lake Otis Parkway, and spawn in both North and South Forks. Campbell Creek coho salmon escapement surveys averaged 159 fish annually from 1986 to 1992, before returns of hatchery fish (Appendix D4). Campbell Creek historically supported annual coho salmon runs greater than observed in recent years. The reduction of Campbell Creek coho salmon runs was a result of (1) urbanization and development along the creek reduced the number and size of wetlands and associated rearing habitat, (2) influx of pollutants and siltation from storm drain runoffs, and (3) poaching.

The annual stocking of 115,000 coho smolt was initiated in 1992 to increase coho salmon runs to Campbell Creek. This stocking is part of the urban coho salmon project aimed at increasing coho salmon angling opportunities in the Anchorage area. Campbell Creek was opened to coho salmon fishing in 1993 for the first time since 1971 (Appendix A3). The Campbell Creek greenbelt includes a major segment of the MOA bike trail system and provides excellent public access to the creek from the confluence of North and South Forks downstream to Campbell Lake.

##### Recent Fishery Performance:

Campbell Creek has been closed to salmon fishing for a number of years. Small, illegal coho salmon fisheries occur at the mouth of Campbell Creek and between Campbell Lake and Lake Otis Parkway. A weir was operated on Campbell Creek in 1993 to count returning adult salmon. An escapement of 2,312 fish was observed during weir operations, over eleven times greater than the 200 fish escapement goal. No formal harvest estimates are available for 1993. However, we feel that anglers harvested about 2,500 coho salmon.

#### Management Objectives:

The Campbell Creek coho salmon fishery was established to provide additional angler opportunities in Anchorage. The specific objective is to generate sufficient increases in angler effort to make the stocking program cost effective. An increase of approximately 3,000 angler days effort, as measured by SHS, was established to achieve this objective. In addition, the fishery will be managed to maintain historic escapement levels and to provide continued natural production and viewing opportunities. An escapement goal of 200 coho salmon measured at the Folker Street weir has been established.

#### Recent Board of Fisheries Actions:

During the November 1992 BOF meeting, two proposals were submitted to open portions of Campbell Creek to coho salmon sport fishing in 1993. One proposal recommended opening the entire reach from Dimond Boulevard to a department marker near Folker Street. An alternate proposal suggested closing the stretch of Campbell Creek that flows through Wickersham Subdivision. After deliberation, BOF opened Campbell Creek from Dimond Boulevard upstream to a department marker near Folker Street (Figure 18). The sport fishing season was set from 25 July through 15 October with a daily bag and possession limit of three coho salmon. A proposal for closing the area downstream of Dimond Boulevard, including Campbell Lake, to all sport fishing was passed.

#### Current Biological and Social Issues:

Little Susitna River coho salmon brood stock is being used to develop the Campbell Creek fishery. Attempts to collect wild Campbell Creek coho salmon in 1990 for brood stock were unsuccessful due to low numbers of spawning adults. The introduction of Little Susitna origin coho salmon may compromise the genetic makeup of wild run Campbell Creek coho salmon, however, the projected increase in angler opportunity was viewed as more beneficial.

Social issues dominate the Campbell Creek coho salmon fishery. Various concerns have been voiced, particularly by Wickersham subdivision residents, and include trespass, public safety, suitability of fish to eat, habitat and bank degradation, and other potential problems associated with increased fishing activity in a residential area.

Efforts were made before the 1992 BOF meeting to encourage creekside residents to participate in the board process. Two residents testified and at least two letters were sent by FAX to the board. Public testimony recommended restricting or not opening the fishery, and the letters included one opposed to the fishery and one in favor. Several calls from area residents were received by staff before the meeting. As a result of concerns expressed in these calls an alternate staff proposal was submitted to keep the Wickersham Subdivision area closed to fishing. However, BOF opened Campbell Creek to coho fishing from the Dimond Boulevard Bridge to Folker Street, including Wickersham Park. In response to continued concern from Wickersham Park residents, a subcommittee of the Campbell Park Community Council was established to monitor and respond to these concerns.

The social issues that developed in 1993 included (1) trespass, littering, and noise at Dimond Boulevard, (2) parking problems at Dimond and Arctic, (3) one

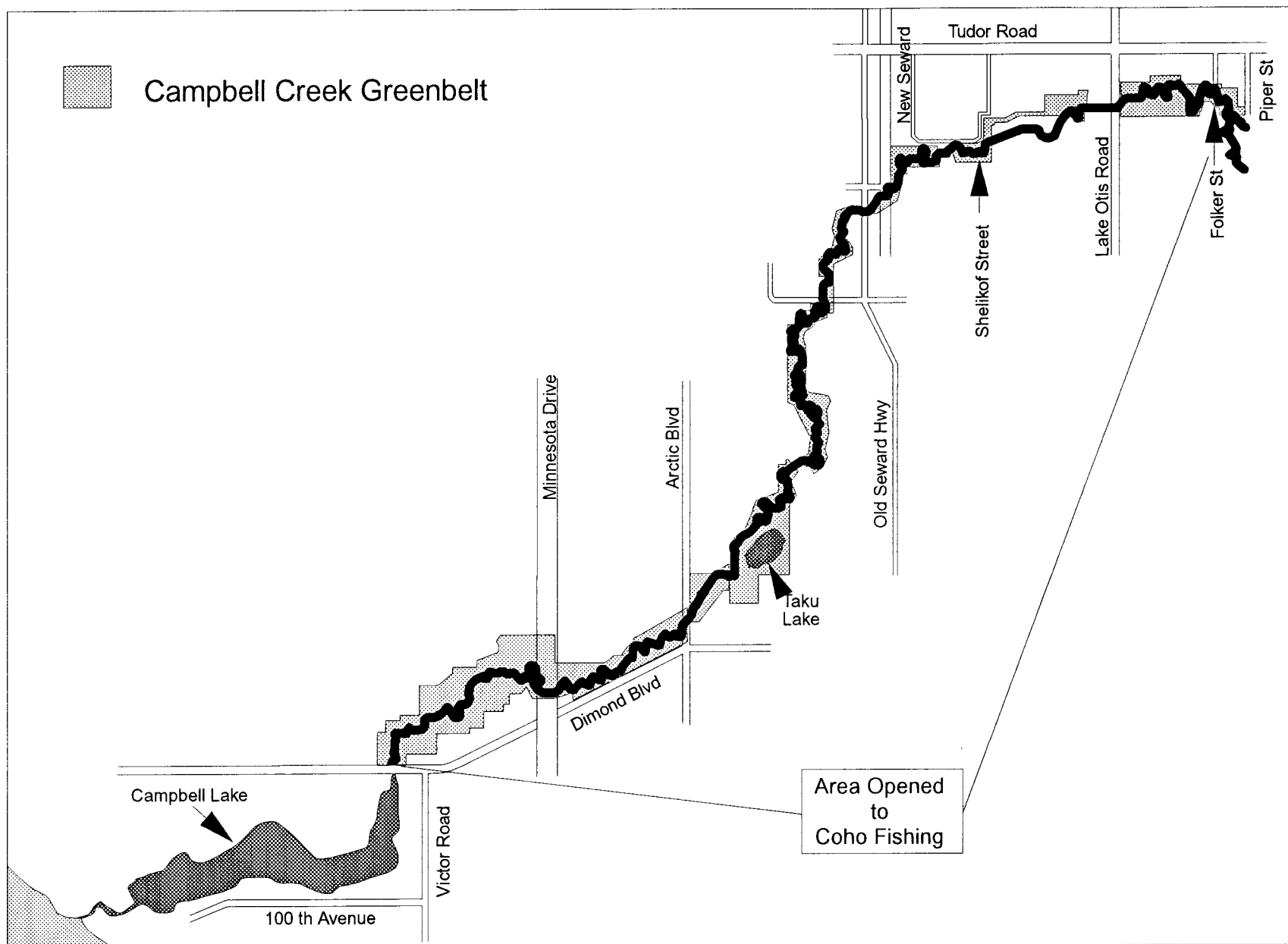


Figure 18. Map of the Campbell Creek coho salmon fishery, 1993.

trespass complaint in Wickersham Park, and (4) one snagging complaint in Wickersham Park. The department responded by installing a barrier fence at Dimond Boulevard, placed litter barrels near access sites, and increased enforcement patrols.

Concerns from commercial fishers were addressed regarding the urban coho fishery. Informational meetings were held with NCI setnetters to discuss the program.

#### Ongoing Research and Management Activities:

Research activities regarding the Campbell Creek coho salmon fishery are part of the NCI urban coho salmon project. This project is designed to evaluate the success of various coho salmon stocking efforts and the impacts these stockings may have on existing fisheries and fish stocks. A weir is installed annually in Campbell Creek at Folker Street as part of this research project. This location will allow for achievement of the 200 fish escapement goal and estimate the contribution to the run by wild and stocked fish. In addition, the contribution of stocked fish to the commercial harvest will be assessed through recovery of coded wire tags in the Cook Inlet mixed-stock commercial fisheries.

#### Recommended Research and Management Activities:

As the Campbell Creek coho salmon sport fishery develops, it is necessary to work with MOA Parks and Recreation, area Advisory Committees, Community Councils, and property owners along the Campbell Creek greenbelt to monitor the fishery and address potential problems as they arise. Coordination with MOA Parks and Recreation, Waterways Council Water Quality Committee, and the Anchorage ADF&G Advisory Committee will continue. A group has been formed through the Campbell Park Community Council to coordinate fishery monitoring with ADF&G.

Coho salmon escapement surveys should be continued to provide baseline data necessary for evaluation of the stocking program.

Enforcement activities by area staff will continue.

#### Turnagain Arm Coho Salmon

##### Background and Historical Perspective:

Wild coho salmon return to Bird Creek, Twentymile, and Placer rivers from late July through mid-September. Fresh fish are often available in these systems into October. Twentymile and Placer River coho salmon runs are unique in the Anchorage area because of their late run timing.

Only three coho salmon were counted during a 1986 escapement survey in Bird and Penguin creeks. However, 593 were counted in 1993. Bird Creek was stocked in 1992 with hatchery raised smolt of Little Susitna River origin as part of the urban coho project. It is hoped that a coho salmon run develops that can sustain a sport fishery. The main objective of the urban stocking program is to increase angler opportunity and participation.

Ingram Creek in Turnagain Arm does not support natural coho salmon runs. In the mid-1980s, a channel connecting the large pond between Placer River and Ingram Creek was dug, and a water control structure installed. ADF&G and USFS, Glacier Ranger District in Girdwood, stocked this pond with 72,000-160,000 coho salmon fingerlings (reared at Crooked Creek Hatchery) annually between 1985-1990 in an effort to create a coho salmon sport fishery (Appendix C5). The stocked coho salmon fingerlings reared and overwintered in the pond and emigrated the following spring as smolt into Turnagain Arm. While outmigrant weirs operated by the USFS found that the growth and survival of the fingerlings to the smolt stage were good, adult returns were very low. Ingram Creek coho salmon stocking efforts were discontinued in 1991.

#### Recent Fishery Performance:

An average of about 1,000 coho salmon are harvested annually in Twentymile River and 500 in Bird Creek. Harvests in Bird Creek are expected to increase as a result of stocking efforts. Coho salmon harvests in Placer River average less than 200 fish annually (1983-1992).

#### Management Objectives:

The management objective for Turnagain Arm coho salmon fisheries is to increase angler effort at Bird Creek by approximately 3,000 angler-days as a result of the annual smolt stocking program.

#### Recent Board of Fisheries Actions:

The only recent BOF action regarding Turnagain Arm coho salmon fisheries was the extension of the Bird Creek open area at the November 1992 meeting. An additional 100 yards upstream from the old boundary was added as a result of a land exchange between ADF&G and private landowners.

#### Current Biological and Social Issues:

Significant access and parking area improvements have been made at Bird and Ingram creeks. Additional expansion to the Bird Creek access area was constructed in 1993 by the Department of Transportation and Public Facilities (DOT) through coordination with Chugach State Park because of the expected increase in angler activity.

The Twentymile and Placer River parking sites are small and provide limited access. Access to both of these rivers is primarily by jet riverboat or airboat. Most sport fishing activity takes place at the confluence of clear water streams and sloughs flowing into the glacial turbid rivers. While a few shore anglers fish Twentymile and Placer rivers, they must trespass across ARR property to access fishing areas. There is a need to develop legal access for shore anglers and improve boat launch facilities at Twentymile River.

#### Ongoing Research and Management Activities:

No research or management activities related to the Turnagain Arm coho fishery were conducted.

#### Recommended Research and Management Activities:

Monitoring of the Bird Creek coho salmon fishery should continue for evaluation of the urban coho salmon stocking program. Enforcement activities will be conducted.

Staff should work with Girdwood area residents to assess potential landlocked lake stocking programs.

Twentymile River coho salmon escapements should be assessed with aerial surveys as concerns of overharvest have been voiced by several long-time resource users. This is felt to be extremely important as Twentymile River supports the largest wild stock coho salmon run in the Anchorage management area.

#### Other Area Coho Salmon Streams

Chester Creek was stocked with coho salmon in 1971 and again in 1982. While small numbers of adult coho salmon have been reported in Chester Creek, no significant returns of coho salmon have occurred. The Westchester Lagoon water control structure appears to be a migration barrier. MOA studied the possibility of removing the barrier to allow upstream passage of returning adult salmon, but recommended that the money be spent on creek rehabilitation and pollution control. Chester Creek supports a native Dolly Varden population and is stocked annually with rainbow trout catchables. Stocking salmon in Chester Creek is not recommended at present.

Several other Anchorage area streams support remnant stocks of coho salmon. Rabbit Creek is closed to all sport fishing for salmon, while portions of Peters, Glacier, California, and Portage creeks and Eagle and Eklutna rivers are open to salmon fishing. No information is available that indicates coho salmon stocks in these streams are capable of supporting growing sport fisheries. Surveys conducted during 1990 recorded two coho salmon in South Fork of Eagle River. No surveys of coho salmon escapement were conducted on the other streams. It is recommended that surveys of these area streams be conducted as time and budget allow to (1) determine coho salmon distribution and relative abundance, (2) evaluate the capability of these streams to support sport fishing, and (3) identify potential sites for future stocking efforts.

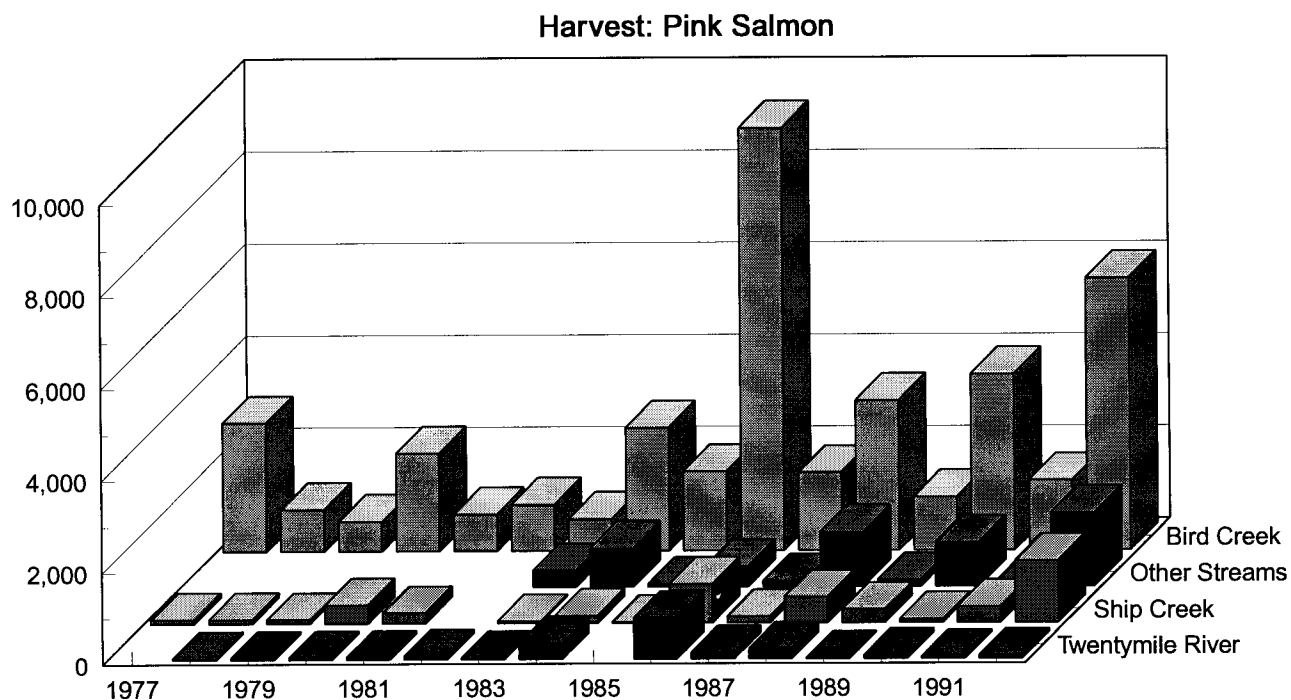
### ANCHORAGE PINK SALMON FISHERIES

#### Areawide Assessment

While pink salmon return annually to Anchorage area streams in July and August, the largest runs occur in even numbered years. The largest pink salmon sport fishery in the Anchorage area occurs at Bird Creek. Since 1977, anglers have harvested an average of 2,900 pink salmon annually in the Anchorage area; 79% of the harvest has occurred in Bird Creek (Table 14, Figure 19). Other area streams reported to support pink salmon returns are Ship, Campbell, Rabbit, Indian, Sixmile, California, and Glacier creeks and Twentymile, Eagle, and Eklutna rivers. Rabbit Creek is the only stream presently closed to all salmon fishing.

Table 14 and Figure 19. Anchorage area pink salmon sport fishing harvest, 1977-1992.

Year	Area Total	Bird Creek	% of Total	Ship Creek	% of Total	Twentymile River	% of Total	Other Streams	% of Total
1977	2,890	2,797	97%	93	3%	0	0%	0	0%
1978	1,037	913	88%	93	9%	31	3%	0	0%
1979	781	654	84%	91	12%	36	5%	0	0%
1980	2,575	2,127	83%	405	16%	43	2%	0	0%
1981	1,073	795	74%	230	21%	48	4%	0	0%
1982	1,079	1,006	93%	0	0%	73	7%	0	0%
1983	1,132	692	61%	42	4%	31	3%	367	32%
1984	4,030	2,669	66%	162	4%	350	9%	849	21%
1985	1,804	1,717	95%	25	1%	0	0%	62	3%
1986	11,350	9,159	81%	849	7%	893	8%	449	4%
1987	2,101	1,684	80%	145	7%	145	7%	127	6%
1988	5,221	3,256	62%	564	11%	218	4%	1,183	23%
1989	1,614	1,155	72%	291	18%	17	1%	151	9%
1990	4,932	3,815	77%	81	2%	81	2%	955	19%
1991	1,967	1,513	77%	353	18%	46	2%	55	3%
77-91 Avg	2,906	2,263	79%	228	9%	134	4%	280	8%
1992	8,901	5,899	66%	1,346	15%	73	1%	1583	18%
% Change	206%	161%		490%		-46%		466%	





## Bird Creek Pink Salmon

### Background and Historical Perspective:

Bird Creek flows into Turnagain Arm approximately 25 miles south of Anchorage and supports the primary Anchorage area pink salmon sport fishery. Recent improvements in parking areas and access trails have increased Bird Creek's popularity as a fishing destination for both local and nonresident anglers. Pink salmon return to Bird Creek in July and early August each year; however, the number of returns during even numbered years are significantly higher than the number of returns during odd numbered years. These differences in relative abundance significantly influence annual angler effort and pink salmon harvest levels in Bird Creek. Bird Creek is open to sport fishing from department markers approximately one-third of 1 mile above the Seward Highway Bridge downstream to the mouth of the creek. This area was recently expanded by approximately 100 yards as a result of a land exchange between ADF&G and private landowners. The area upstream of this reach is closed to all salmon fishing.

### Recent Fishery Performance:

Bird Creek supported an annual sport harvest of 1,486 pink salmon from 1977 through 1985 (Table 14). The sport harvest increased to 3,783 pink salmon annually from 1986 through 1992. Most of the increase was due to improved access and increased public awareness of this angling opportunity. A total of 8,901 pink salmon were harvested in Bird Creek in 1992, a high cycle year, and accounted for 66% of the total Anchorage area pink salmon sport harvest (Table 14, Figure 19).

### Management Objectives:

No specific management objectives have been established for the Bird Creek pink salmon fishery.

### Recent Board of Fisheries Actions:

The only recent BOF action regarding Bird Creek pink salmon fishery was the extension of the open area at the November 1992 meeting. An additional 100 yards upstream from the old boundary were added as a result of a land exchange between ADF&G and private landowners.

### Current Biological and Social Issues:

There are presently no significant biological or social issues pertaining to the Bird Creek pink salmon sport fishery. Sufficient escapement reaches the spawning grounds to perpetuate the run and basic infrastructure such as parking, trails, and sanitation facilities are in place to allow access to the sport fishery.

### Ongoing Research and Management Activities:

No specific research or management activities are currently being conducted for the Bird Creek pink salmon fishery. Enforcement activities will be conducted.

#### Recommended Research and Management Activities:

At present, the annual even year pink salmon runs to Bird Creek are sufficient to support increased sport fishing participation. Stocking to increase the odd year return may be appropriate to reduce the annual variability in run magnitude and increase angling opportunities during low (odd year) cycles. Bird Creek was listed as a proposed site for annual pink salmon enhancement in the Statewide Stocking Plan for Recreational Fisheries (ADF&G 1989), but is not listed in the stocking plan for 1993-1996 because pink salmon enhancement facilities are not available.

#### Other Area Pink Salmon Streams

Ingram Creek was stocked annually with approximately 285,000 pink salmon fry from 1987 to 1990 in an effort to increase pink salmon abundance and provide an additional Anchorage area pink salmon sport fishing site (Appendix C5). Returns of adult fish from these stocking efforts were sporadic and did not prove to be cost effective. As a significant sport fishery was not developed, stocking of pink salmon fry was discontinued in 1991.

Most other Anchorage area streams support annual pink salmon runs but harvest levels are low. From 1977-1991, the average annual pink salmon sport harvest in all area streams combined, excluding Bird Creek, was about 650 fish of which 9% were harvested in Ship Creek (Table 14). Other streams with reported pink salmon sport harvests include Twentymile, Placer, and Eagle rivers and California, Glacier, Fish, Indian, Campbell, Eklutna, and Sixmile creeks. Pink salmon escapement surveys are not conducted in Anchorage area streams by ADF&G staff. Therefore, no information is available on the status of most of these stocks.

Military personnel from Elmendorf have operated a weir on Sixmile Creek from 1988-1993 (Appendix D5). In 1993, 1,013 pink salmon were counted. Bird Creek is the only area stream that currently supports a directed pink salmon sport fishery as Sixmile Creek is closed to all salmon fishing. A staff proposal to the BOF to open Sixmile Creek and close some of the other area streams to salmon fishing should be considered.

### OTHER ANCHORAGE FISHERIES

#### Sockeye Salmon

The primary Anchorage area streams that support sockeye salmon runs are Campbell and Sixmile creeks, and Twentymile and Placer rivers. The annual Anchorage area sockeye salmon sport harvest has averaged 461 fish from 1977-1991 (Table 15, Figure 20). A portion of the Anchorage area sport harvest has been reported for Bird Creek and Eagle River. These streams are not known to support sockeye salmon runs. It appears that at least a portion of the Anchorage area sockeye salmon sport harvest estimated in SHS may be due to anglers misreporting their catch.

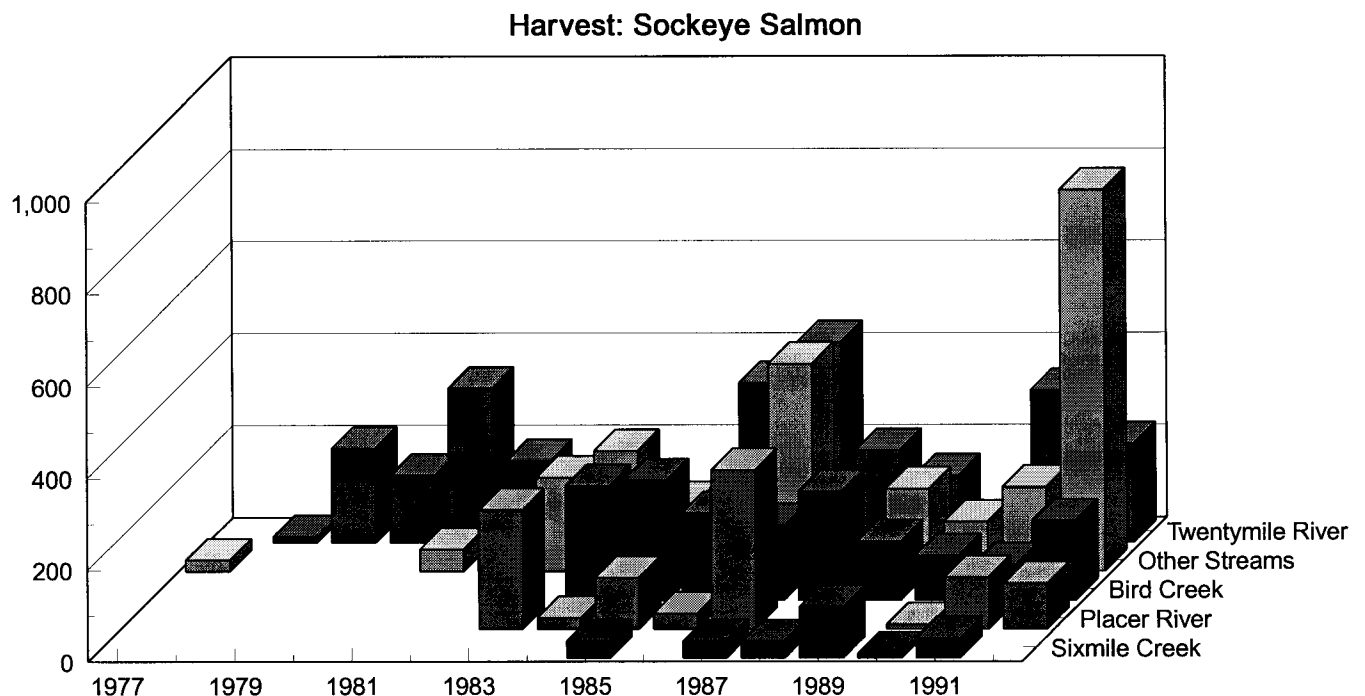
In Campbell Creek, most sockeye salmon spawn in North Fork and little is documented on their life history. Campbell Creek has no natural lake system, only the manmade lake at the creek mouth. Sockeye salmon were counted at the

Table 15 and Figure 20. Anchorage area sockeye salmon sport fishing harvest, 1977-1992.

Year	Area Total	Sixmile Creek	% of Total	Bird Creek	% of Total	Twentymile River	% of Total	Placer River	% of Total	Other**	% of Total
1977	25	0	0%	0	0%	0	0%	*	*	25	100%
1978	14	0	0%	0	0%	14	100%	*	*	0	0%
1979	204	0	0%	0	0%	204	100%	*	*	0	0%
1980	146	0	0%	0	0%	146	100%	*	*	0	0%
1981	383	0	0%	0	0%	335	87%	*	*	48	13%
1982	272	0	0%	0	0%	178	65%	*	*	94	35%
1983	589	0	0%	0	0%	123	21%	261	44%	205	35%
1984	598	0	0%	249	42%	62	10%	25	4%	262	44%
1985	621	37	6%	261	42%	62	10%	112	18%	149	24%
1986	603	0	0%	190	32%	346	57%	34	6%	33	5%
1987	1,431	36	3%	163	11%	435	30%	346	24%	451	32%
1988	472	36	8%	236	50%	200	42%	0	0%	0	0%
1989	564	111	20%	128	23%	145	26%	0	0%	180	32%
1990	244	10	4%	97	40%	19	8%	10	4%	108	44%
1991	749	44	6%	78	10%	331	44%	113	15%	183	24%
77-91 Avg	461	18	3%	93	17%	173	47%	100	13%	116	26%
1992	1,315	0	0%	173	13%	214	16%	99	8%	829	63%
% Change	185%			85%		23%		-1%		615%	

\* Data not broken out by site but included in total

\*\* Includes saltwater harvests



Campbell Creek weir as part of the urban coho salmon project. However, the weir is not operational until most sockeye salmon have passed the site. Therefore, foot survey counts are used to estimate Campbell Creek sockeye salmon escapement. The average escapement from 1986 to 1993 was 529 fish (Appendix D4). Campbell Creek is presently closed to sockeye salmon sport fishing. Therefore, the small reported harvests have been illegal.

A weir has been operated by Elmendorf Air Force Base personnel in Sixmile Creek since 1988 (Appendix D5). Annual counts of returning sockeye salmon from 1988 through 1993 have averaged 2,084 fish. Sixmile Creek is presently closed to sport fishing, although Elmendorf Air Force Base allows fishing in the intertidal area below the high tide mark near the creek mouth. This site is marked with a steel cable across the stream and by department markers. The bag limit for this area was increased from three to six sockeye salmon per day due to the recent large runs.

Sockeye salmon escapements are not quantified in Twentymile or Portage rivers. Carmen Lake and its inlet tributaries are the primary sockeye salmon spawning areas in the Twentymile River drainage. Approximately 50 spawning sockeye salmon were observed in 1993 in the mainstem Twentymile River immediately downstream from an unnamed tributary entering the river about 13 miles from the mouth by department personnel hunting mountain goats (J. Regnart and B. Stratton, ADF&G Anchorage, personal communications).

Sockeye salmon returning to Portage River spawn in the artificially created channel in Williwaw Creek where a viewing platform and information kiosk were installed by USFS.

#### Chum Salmon

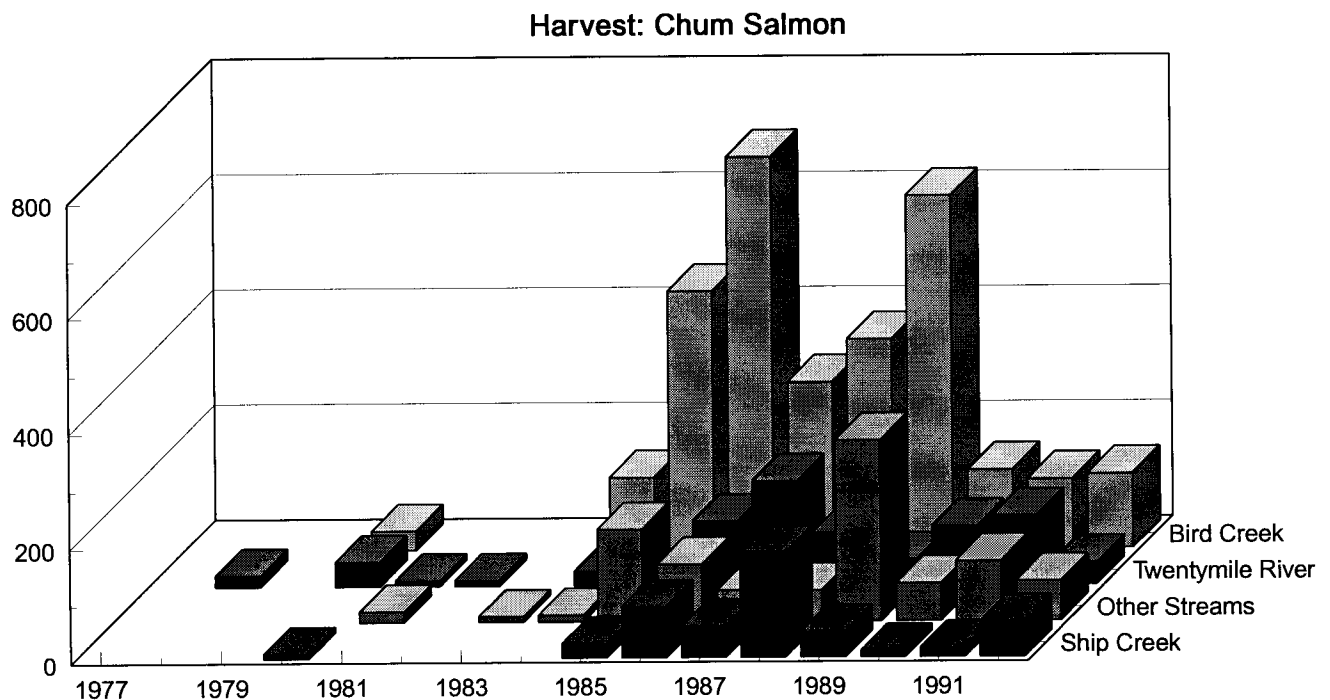
Chum salmon do not return in significant numbers to any Anchorage area stream. Most chum salmon are harvested by anglers targeting pink and coho salmon. There are no directed chum salmon sport fisheries. Beginning in 1985, the area chum salmon sport harvest increased significantly. The annual Anchorage area chum salmon sport harvest has averaged 326 fish from 1977-1991, of which 33% have been taken in Bird Creek (Table 16, Figure 21). Chum salmon are occasionally observed during chinook salmon escapement surveys although no directed chum salmon counts are conducted. Three chum salmon were observed at the Campbell Creek weir, and 60 were counted during Bird and Penguin Creek chinook salmon foot surveys. Chum salmon carcasses and spawners (12) were observed in 1993 in the mainstem Twentymile River immediately downstream from an unnamed tributary entering the river about 13 miles from the mouth by department personnel hunting mountain goats (J. Regnart and B. Stratton, ADF&G Anchorage, personal communications). No specific management activities are recommended for chum salmon in the Anchorage area.

#### Steelhead Trout

Although steelhead trout are not indigenous to the Anchorage area, there has been public interest in developing a steelhead run in one or more area stream. In 1956, 50,000 eyed steelhead trout eggs from Kodiak Hatchery were placed in egg trays and planted in Campbell Creek. There was no reported harvest from this release. In 1985 and 1986, steelhead smolt of Anchor River origin were stocked in Campbell Creek in an effort to establish an Anchorage area

Table 16 and Figure 21. Anchorage area chum salmon sport fishing harvest, 1977-1992.

Year	Area Total	Ship Creek	% of Total	Bird Creek	% of Total	Twentymile River	% of Total	Other Streams	% of Total
1977	0	0	0%	0	0%	0	0%	0	0%
1978	20	0	0%	0	0%	20	100%	0	0%
1979	0	0	0%	0	0%	0	0%	0	0%
1980	86	9	10%	34	40%	43	50%	0	0%
1981	29	0	0%	0	0%	10	34%	19	66%
1982	10	0	0%	0	0%	10	100%	0	0%
1983	10	0	0%	0	0%	0	0%	10	100%
1984	162	0	0%	125	77%	25	15%	12	7%
1985	634	25	4%	448	71%	0	0%	161	25%
1986	982	89	9%	681	69%	112	11%	100	10%
1987	579	54	9%	290	50%	181	31%	54	9%
1988	691	182	26%	364	53%	91	13%	54	8%
1989	1,015	44	4%	613	60%	44	4%	314	31%
1990	315	11	3%	136	43%	102	32%	66	21%
1991	360	16	4%	120	33%	120	33%	104	29%
77-91 Avg	326	29	5%	187	33%	51	28%	60	20%
1992	297	61	21%	129	43%	38	13%	69	23%
% Change	-9%	113%		-31%		-25%		16%	



steelhead trout run. A weir was operated at the Campbell Lake outlet in 1986 and 1987 during August and September. No steelhead trout were observed in 1986 and only three steelhead trout were captured during 1987. One steelhead trout from the Campbell Creek release was caught in the high seas drift net fishery (ADF&G Tag Lab, Juneau). The stocking program was discontinued in 1987 due to the poor return of steelhead trout.

Although no steelhead have been observed during occasional spring surveys of selected stream reaches, steelhead have reportedly been caught recently by anglers fishing Campbell and Chester creeks in April. In 1990, 10 steelhead were observed downstream of the Elmendorf Hatchery raceway outfall in Ship Creek. Steelhead trout released into Campbell Creek in 1985 and 1986 were hatched and reared at Elmendorf Hatchery. There are no steelhead trout stocking programs planned for the Anchorage area.

#### Stocked Rainbow Trout Streams

Two Anchorage area streams are stocked with rainbow trout, Campbell and Chester creeks. Rainbow trout were first stocked in Campbell Creek in 1983 and are released each year between Lake Otis Parkway and the confluence of North and South Forks. Stocking of Chester Creek began in 1971.

In 1986, the BOF created a trophy rainbow trout area in the upper reaches of Campbell Creek beginning in 1987. Both the North and South Forks were restricted to single hook, artificial lure fishing only, and the retention of all rainbow trout was prohibited. Although the North and South Forks of Campbell Creek are currently managed as trophy areas for rainbow trout, no large rainbow trout have been observed in these Campbell Creek reaches during chinook and coho salmon escapement surveys. Evaluation of rainbow trout size in the North and South Forks of Campbell Creek is recommended to determine if current regulations regarding catch and release are appropriate. If these Campbell Creek reaches do not produce large rainbow trout, a staff proposal should be developed for consideration by BOF to allow sport harvests of these hatchery produced fish.

Both Campbell and Chester creeks are open systems. SHS indicates an average 1984-1992 harvest of 484 fish from Campbell Creek (Table 17, Figure 22) and no harvest reported from Chester Creek. As neither fishery contributes significantly to the annual angler effort or harvest in the Anchorage area based on SHS results, consideration should be made to discontinue these stocking efforts. This decision should be made only after (1) analyzing the costs and benefits of these stockings as opposed to alternative sites, and (2) monitoring the fishery to determine if actual effort is greater than effort reported in SHS. If the majority of angling effort in Chester Creek is expended by juveniles, it would not be accurately estimated in SHS.

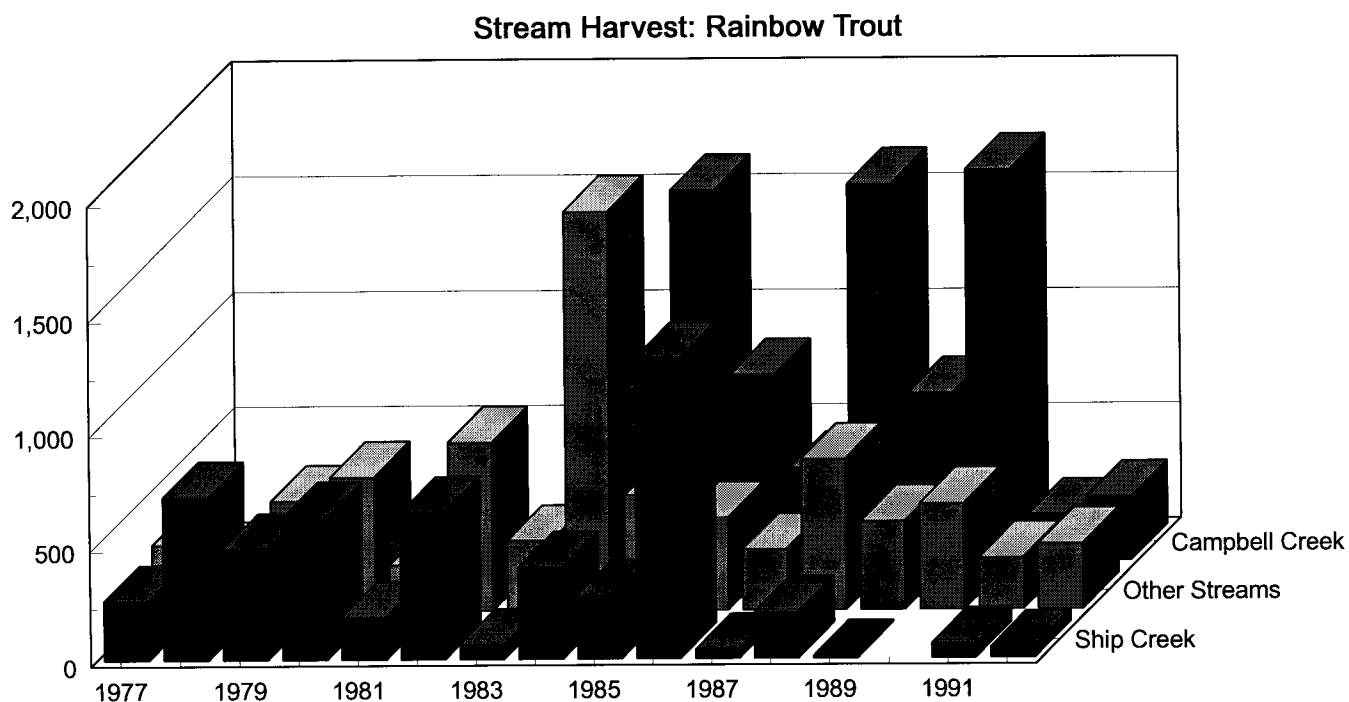
#### Dolly Varden Streams

While most area streams support small populations of resident Dolly Varden, no native Arctic char occur in the Anchorage area. Harvests of Dolly Varden have decreased in recent years, most likely as a result of increased stocking efforts for other species. While the 1992 harvest of 1,474 was less than 50% of the 1977-1991 mean, significant harvests of wild Dolly Varden occur in

Table 17 and Figure 22. Anchorage area streams rainbow trout sport fishing harvest, 1977-1992.

Year	Area Total	Campbell Creek	% of Total	Ship Creek	% of Total	Other Creeks	% of Total
1977	549	*	0%	257	47%	292	53%
1978	711	*	0%	711	100%	0	0%
1979	964	*	0%	482	50%	482	50%
1980	1,205	*	0%	620	51%	585	49%
1981	383	*	0%	182	48%	201	52%
1982	1,373	*	0%	639	47%	734	53%
1983	367	0	0%	63	17%	304	83%
1984	2,506	374	15%	399	16%	1,733	69%
1985	2,393	1,613	67%	277	12%	503	21%
1986	2,525	815	32%	1,307	52%	403	16%
1987	710	408	57%	39	5%	263	37%
1988	2,492	1,637	66%	200	8%	655	26%
1989	1,126	732	65%	9	1%	385	34%
1990	2,158	1,697	79%	0	0%	461	21%
1991	485	199	41%	62	13%	224	46%
77-91 Avg	1,330	498	28%	350	31%	482	41%
1992	609	277	45%	47	8%	285	47%
% Change	-54%	-44%		-87%		-41%	

\* Data not broken out by site but included in total



several Anchorage area streams (Table 18, Figure 23). Harvests in Eagle and Twentymile rivers comprised 18% and 10%, respectively, of the total harvest during 1992.

#### Arctic Grayling

Native Arctic grayling are not known to occur in the Anchorage area. However, grayling are occasionally reported as harvest in Eagle River and Ship Creek. A harvest of 413 Arctic grayling was reported for 1992 in SHS, all from Anchorage area stocked lakes (Table 19, Figure 24).

Arctic grayling fry of Tolsona Lake origin were released in Campbell Creek during 1968. No information is available on the results of this stocking effort. No Arctic grayling have been reported harvested in Campbell Creek since the inception of SHS in 1977.

#### Northern Pike

Northern pike do not occur naturally in Anchorage area waters and have not been stocked as part of any ADF&G program. However, reports of northern pike harvested in Sand, Lower Fire, and Delong lakes have been made to the department. A juvenile northern pike caught in Sand Lake was brought into the Anchorage ADF&G office in 1991, indicating that a spawning population has been established. This indicated that an illegal introduction occurred, most likely by float plane anglers returning from trips to one of the Susitna basin lakes that support northern pike populations. The success of the department stocking programs may decline as the northern pike populations grow.

#### Eulachon

Turnagain Arm supports the largest eulachon (hooligan or candlefish) fishery in the state. The primary fishing sites are Twentymile River and rocky beaches along Turnagain Arm. Eulachon have also been reported caught in Bird Creek, Placer River, and Portage Valley streams. Anglers use dip nets and fish in May and early June. Experienced dippers maintain that a 25-foot tide as measured in Anchorage is the minimum required to bring water, and eulachon, into the east end of Turnagain Arm. The extreme tides and muddy substrate in Turnagain Arm limit the number of sites available to anglers. The average annual eulachon harvest in Turnagain Arm from 1977-1991 has been about 142,000 fish. The 1992 harvest was down 70% from this mean with a harvest of only 42,964 fish (Table 20, Figure 25).

Age, length, weight, and sex data were collected from the Twentymile River fishery during 1960, 1962, 1963, and 1972.

Management recommendations for the Turnagain Arm eulachon fishery include improvements to Twentymile River parking areas and boat launch, and the addition of sanitation facilities.



Table 18 and Figure 23. Anchorage area streams Dolly Varden/Arctic char sport fishing harvest, 1977-1992.

Year	Area Total	Lakes Total	% of Total	Streams Total	% of Total	Ship Creek	% of Total	Bird Creek	% of Total	Campbell Creek	% of Total	Twentymile River	% of Total	Eagle River	% of Total	Other**	% of Total
1977	4,040	0	0%	4,040	100%	249	6%	676	17%	*	*	945	23%	868	21%	1,302	32%
1978	4,264	43	1%	4,221	99%	689	16%	689	16%	*	*	1,055	25%	1,357	32%	431	10%
1979	3,763	45	1%	3,718	99%	754	20%	300	8%	*	*	473	13%	1,300	35%	891	24%
1980	3,607	86	2%	3,521	98%	275	8%	207	6%	*	*	413	11%	818	23%	1,808	50%
1981	5,002	0	0%	5,002	100%	441	9%	125	2%	*	*	1,610	32%	1,245	25%	1,581	32%
1982	2,893	0	0%	2,893	100%	210	7%	105	4%	*	*	472	16%	1,247	43%	859	30%
1983	2,884	315	11%	2,559	89%	168	6%	220	8%	31	1%	294	10%	1,269	44%	587	20%
1984	6,981	173	2%	6,709	96%	100	1%	449	6%	150	2%	187	3%	5,674	81%	248	4%
1985	2,339	69	3%	2,253	96%	52	2%	121	5%	1,127	48%	607	26%	225	10%	138	6%
1986	2,425	168	7%	2,257	93%	145	6%	134	6%	302	12%	458	19%	983	41%	235	10%
1987	1,811	36	2%	1,775	98%	163	9%	109	6%	181	10%	254	14%	543	30%	525	29%
1988	3,636	108	3%	3,455	95%	146	4%	127	3%	1,564	43%	327	9%	637	18%	727	20%
1989	2,646	731	28%	1,915	72%	75	3%	188	7%	291	11%	300	11%	732	28%	329	12%
1990	2,208	643	29%	1,549	70%	82	4%	33	1%	445	20%	396	18%	330	15%	279	13%
1991	2,520	798	32%	1,703	68%	350	14%	10	0%	107	4%	185	7%	584	23%	486	19%
77-91 Avg	3,401	214	8%	3,171	92%	260	8%	233	6%	466	17%	532	16%	1187	31%	695	21%
1992	3,269	1,615	49%	1,474	45%	33	1%	147	4%	49	1%	311	10%	573	18%	541	17%
% Change	-4%	653%		-54%		-87%		-37%		-89%		-42%		-44%		-20%	

\* Data not broken out by site but included in total

\*\* Includes saltwater harvests

### Harvest: Dolly Varden

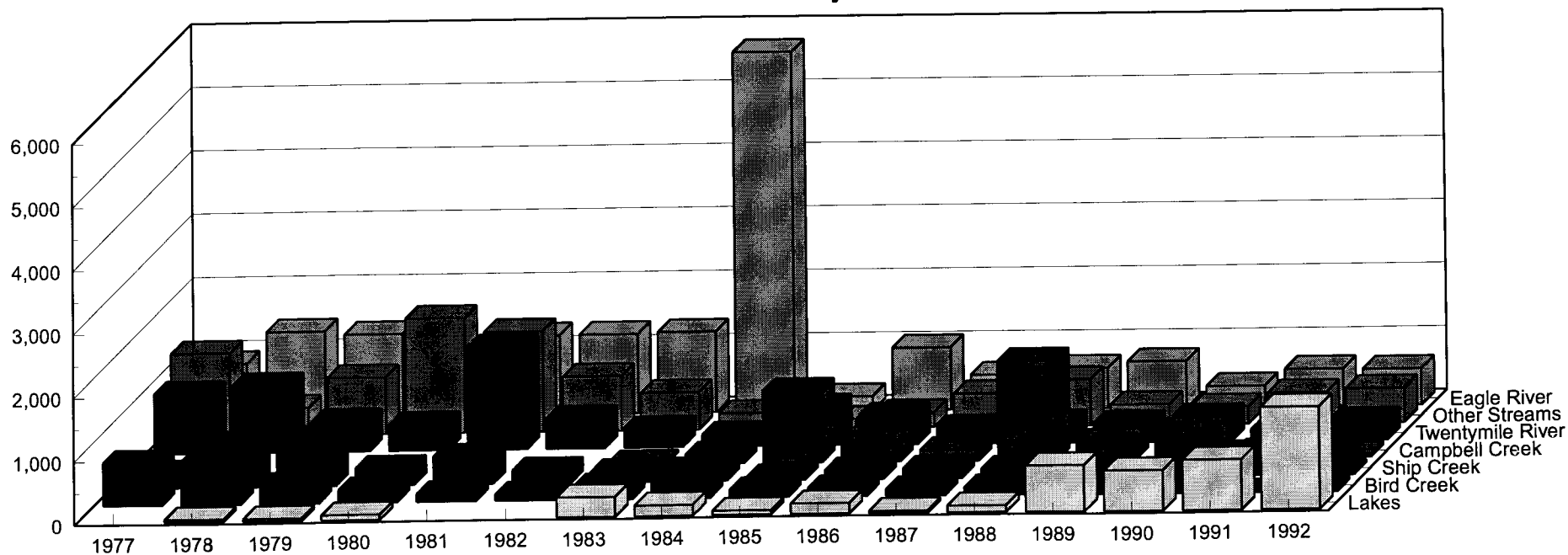


Table 19 and Figure 24. Anchorage area lakes Arctic grayling sport fishing harvest, 1977-1992.

Year	Area Total	Lakes	% of Total	Streams	% of Total
1977	187	187	100%	0	0%
1978	0	0	0%	0	0%
1979	18	9	50%	9	50%
1980	77	77	100%	0	0%
1981	115	48	42%	67	58%
1982	210	0	0%	210	100%
1983	0	0	0%	0	0%
1984	262	0	0%	262	100%
1985	0	0	0%	0	0%
1986	168	0	0%	168	100%
1987	18	0	0%	18	100%
1988	1,001	819	82%	182	18%
1989	66	66	100%	0	0%
1990	576	527	91%	49	9%
1991	238	188	79%	50	21%
77-91 Avg	196	128	43%	68	37%
1992	413	413	100%	0	0%
% Change	111%	222%			

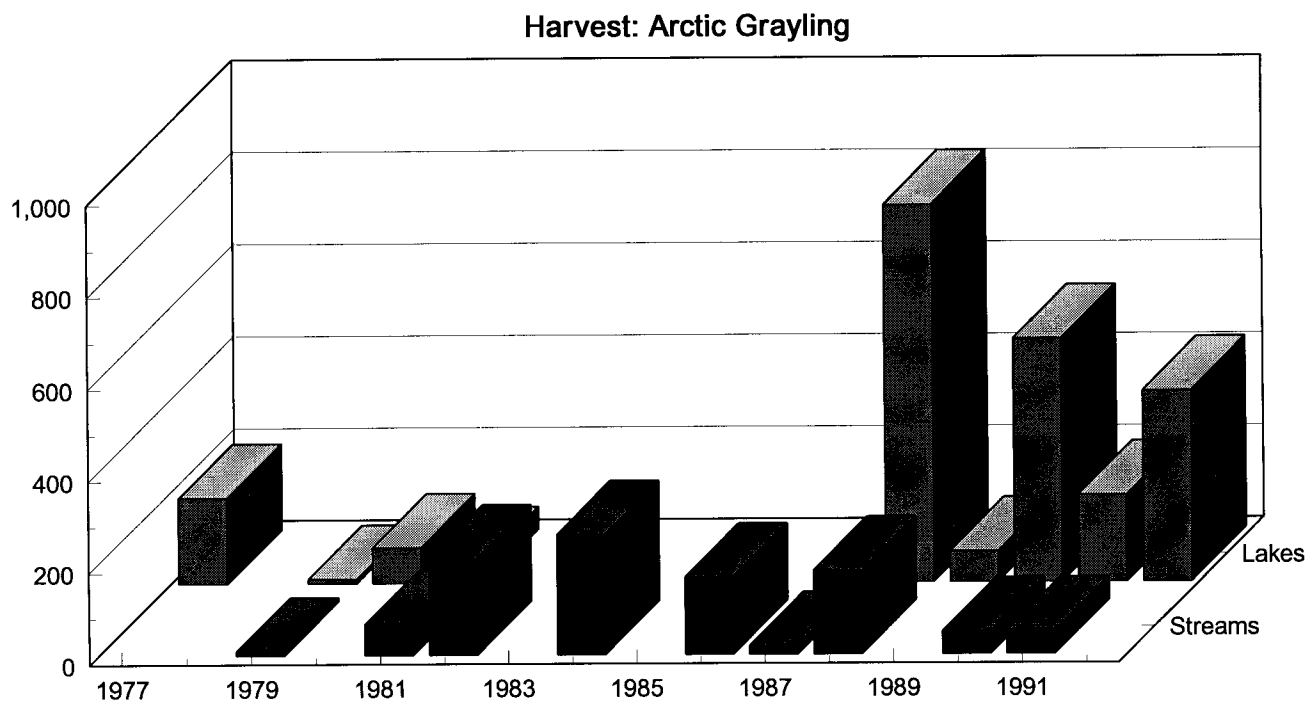
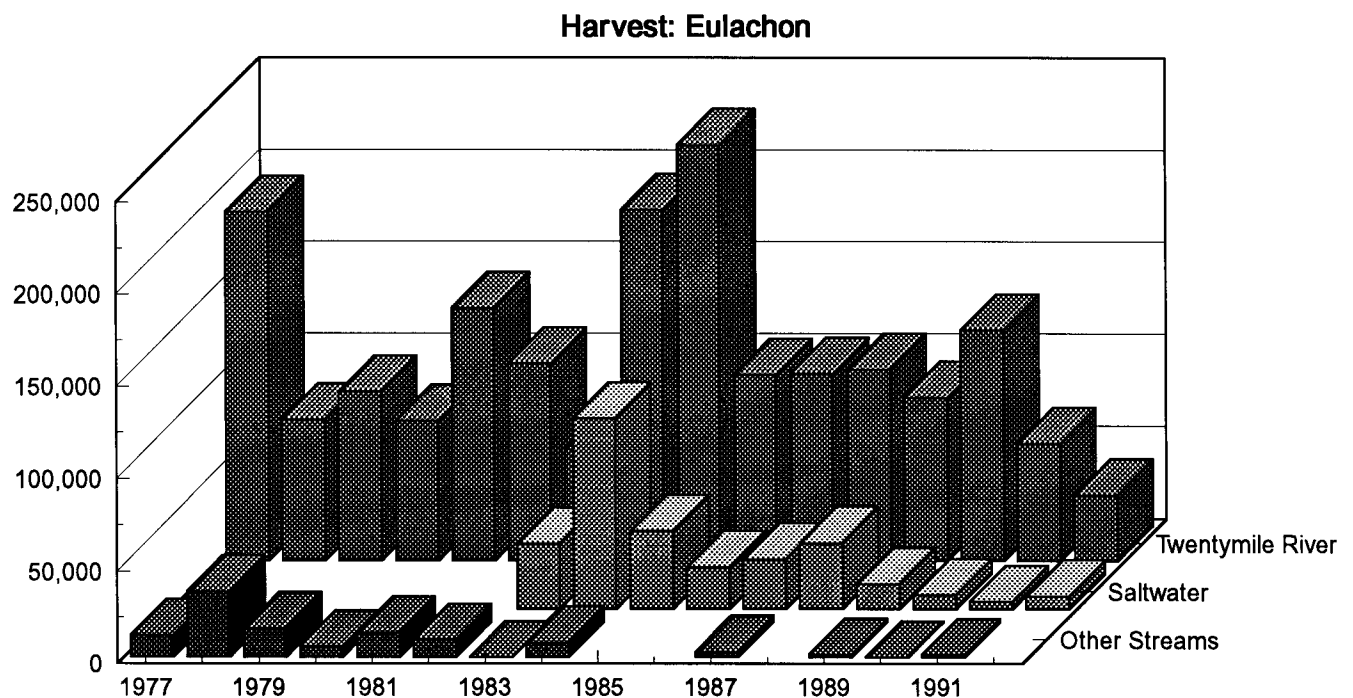


Table 20 and Figure 25. Anchorage area eulachon harvest, 1977-1992.

Year	Area Total	Saltwater	% of Total	Freshwater	% of Total	Twentymile River	% of Total	Other	% of Total
1977	201,209	*	*	201,209	100%	189,077	94%	12,132	6%
1978	112,352	*	*	112,352	100%	76,380	68%	35,972	32%
1979	107,132	*	*	107,132	100%	91,349	85%	15,783	15%
1980	81,624	*	*	81,624	100%	75,623	93%	6,001	7%
1981	150,329	*	*	150,329	100%	136,869	91%	13,460	9%
1982	116,617	*	*	116,617	100%	106,850	92%	9,767	8%
1983	95,606	35,362	37%	60,244	63%	60,160	63%	84	0%
1984	301,545	103,143	34%	198,402	66%	190,418	63%	7,984	3%
1985	268,135	42,595	16%	225,540	84%	225,540	84%	0	0%
1986	123,954	22,980	19%	100,974	81%	100,974	81%	0	0%
1987	131,584	26,932	20%	104,652	80%	101,574	77%	3,078	2%
1988	139,508	35,952	26%	103,556	74%	103,556	74%	0	0%
1989	103,881	13,923	13%	89,958	87%	88,411	85%	1,547	1%
1990	133,027	7,663	6%	125,364	94%	125,100	94%	264	0%
1991	69,257	4,229	6%	65,028	94%	63,365	91%	1,663	2%
77-91 Avg	142,384	19,519	12%	122,865	88%	115,683	82%	7,182	6%
1992	42,964	7,290	17%	35,674	83%	35,674	83%	0	0%
% Change	-70%	-63%		-71%		-69%			

\* Data not broken out by site but included in total



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## APPENDIX A

### Regulation summaries

Appendix A1. Sport fishing regulations for Ship Creek, 1957-1993.

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Year	Sport Fishing Regulations
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1957 - 1959	Closed to sport fishing from 4/1 through 5/27. Bag limit of 10 trout daily or in possession, only two 20 inches or more in length. No regulations on salmon fishing.
1960	Closed to all sport fishing.
1961 - 1962	Closed to salmon fishing. Closed to sport fishing from 4/1 through 5/27. Bag limit of 10 trout daily or in possession, only two 20 inches or more in length. In addition, anglers were allowed up to 20 resident fish if the excess were Dolly Varden.
1963	Closed to salmon fishing. Closed to sport fishing from 4/1 through 5/25. Bag limit of 10 trout daily or in possession, only two 20 inches or more in length. In addition, anglers were allowed up to 20 resident fish if the excess were Dolly Varden.
1964 - 1965	Closed season was 4/1 through third Friday in May. Open to salmon fishing (except for king salmon) downstream of a marker located 300 feet below the Chugach Power Plant Dam. Bag limit was three coho, chum, sockeye, or pink with an additional three coho salmon allowed.
1966 - 1967	Same as 1964-1965 and single-hook-only with a gap between point and shank of 1/2 inch or less.
1968	Closed to all fishing from 1/1 through 8/31. Anglers were allowed three salmon. Closed to king salmon fishing. Fishing was single-hook-only with a gap between point and shank of 1/2 inch or less.
1969	Closed to all fishing from 1/1 through 8/31. From 9/1 through 12/31, anglers were allowed three salmon. Closed to king salmon fishing. Fishing was single-hook-only with a gap between point and shank of 1/2 inch or less. Removed the excess Dolly Varden in the resident fish bag limit.

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Year	Sport Fishing Regulations
1970	Closed to all fishing from 1/1 through 8/31 except the special king salmon opening from 7/4 through 7/19 with a bag limit of one king salmon per day and two per season. From 9/1 through 12/31, anglers were allowed three salmon. Fishing was single-hook-only with a gap between point and shank of 1/2 inch or less.
1971	Closed to all fishing from 1/1 through 8/31 except the special king salmon openings on 6/10-11 and 6/17-18 with a bag limit of one king salmon per day and two per season. From 9/1 through 12/31, anglers were allowed three salmon. A king salmon punch card was required. Fishing was single-hook-only with a gap between point and shank of 1/2 inch or less.
1972	Closed to all fishing from 1/1 through 7/31 except the special king salmon openings on 6/10-11 and 6/17-18 with a bag limit of one king salmon per day and two per season. From 9/1 through 12/31, anglers were allowed three salmon. A king salmon punch card was required. Fishing was single-hook-only with a gap between point and shank of 1/2 inch or less.
1973 - 1981	Closed to all fishing from 1/1 through 8/17. Closed to king salmon fishing. From 8/18 through 12/31, anglers were allowed three salmon. Fishing was single-hook-only with a gap between point and shank of 1/2 inch or less.
1982 - 1984	Closed to all fishing from 1/1 through 8/17. Closed to king salmon fishing. From 8/18 through 12/31, anglers were allowed three salmon. Fishing was single-hook-only with a gap between point and shank of 1/2 inch or less. The rainbow trout limit was reduced to five fish, only one 20 inches or more in length.
1985 - 1986	Closed to all fishing from 1/1 through 7/31. There is no longer a single-hook-only restriction. For the period from 8/1 through 12/31, anglers are allowed three salmon.
1987 - 1990	The area opened to salmon fishing was downstream of a marker located 100 feet below the Chugach Power Plant Dam. In addition, the creek was open to all fishing (including kings) on Tuesdays and Wednesdays for five consecutive weeks commencing the second Tuesday in June. King salmon bag and possession limits were one and two, respectively with no seasonal limit.

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Year	Sport Fishing Regulations
1991 - 1992	The area opened to salmon fishing was downstream of a marker located 100 feet below the Chugach Power Plant Dam. King salmon fishing was allowed from 1/1 through 7/13 with a daily bag and possession limit of one and two and no seasonal limit. Fishing for other salmon was allowed year-round with a bag and possession limit of three and three, respectively. In addition, fishing for Dolly Varden, rainbow trout, and other species was allowed year-round.
1993	Regulations are the same as those for 1990-1992, with the addition of a seasonal limit of five king salmon for Cook Inlet.

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Appendix A2. Sport fishing regulations for Eagle River, 1957-1993.

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Year	Sport Fishing Regulations
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1957 - 1959	Closed to sport fishing from 4/1 through 5/27. Bag limit was 10 trout daily or in possession, only two 20 inches or more in length. No regulations on salmon fishing.
1960	Closed to sport fishing from 4/1 through 5/27. River was closed to salmon fishing upstream of 1/4 mile above the Glenn Highway bridge. Bag limits were ten salmon or trout daily, only three could be salmon greater than 16 inches in length, only two could be king salmon.
1961 - 1962	Closed to sport fishing from 4/1 through 5/27. River was closed to salmon fishing upstream of 1/4 mile above the Glenn Highway bridge. Bag limits were ten salmon or trout daily, only three could be salmon greater than 16 inches in length, only two could be king salmon. Anglers were allowed up to 20 resident fish if the excess were Dolly Varden.
1963	Closed season was from 4/1 through 5/25. River was closed to salmon fishing upstream of 1/4 mile above the Glenn Highway bridge. Bag limit was six coho salmon; three pink, chum or red salmon; one king salmon. Resident fish bag limits were ten trout daily, only two over 20 inches. Anglers were allowed up to 20 resident fish if the excess were Dolly Varden.
1964 - 1967	Closed season was from 4/1 through third Friday in May. River was closed to salmon fishing upstream of 1/4 mile above the Glenn Highway bridge. Bag limit was three coho, chum, sockeye, or pink with an additional three coho salmon allowed. Closed to king salmon fishing. Resident fish bag limits were ten trout daily, only two over 20 inches.
1968	No closed season. River was closed to salmon fishing upstream of 1/4 mile above the Glenn Highway bridge. The bag limit was three salmon 16 inches or greater in length. The river remained closed to king salmon fishing. Resident fish bag limits were ten trout daily, only two over 20 inches.
1969 - 1981	No closed season. River was closed to salmon fishing upstream of 1/4 mile above the Glenn Highway bridge. The bag limit was three salmon 16 inches or greater in length. The river remained closed to king salmon fishing. The excess Dolly Varden in the bag limit for resident fish was removed.

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Year	Sport Fishing Regulations
1982 - 1986	No closed season. River was closed to salmon fishing upstream of 1/4 mile above the Glenn Highway bridge. The bag limit was three salmon 16 inches or greater in length. The river remained closed to king salmon fishing. The bag limit for rainbow trout was five per day, only one 20 inches or greater in length. The bag limit remained at 10 for other resident fish.
1987 - 1990	No closed season. River was closed to salmon fishing upstream of 1/4 mile above the Glenn Highway bridge. The bag limit was three salmon 16 inches or greater in length. The river remained closed to king salmon fishing. The bag limit for rainbow trout was five per day, only one 20 inches or greater in length. The South Fork below the falls was closed to fishing from 1 June through 14 August.
1991	The regulations are the same as those from 1987-1990 with the exception of South Fork below the falls, which was open to fishing from 15 August through 31 May.
1992	Rules and regulations regarding king salmon fishing were defined by Emergency Order issued in mid-May. The river was open to king salmon fishing at various sites on Sundays, Tuesdays, and Thursdays from 6:00 a.m. to 10:00 p.m., 26 May to 12 July. Bag and possession limits for king salmon were 1 and 1. Sites where anglers were allowed to fish for king salmon were noted by Department markers at the following locations: (1) North Fork trailhead shore angler site: from approximately 100 yards downstream of the confluence of the North Fork and mainstem Eagle River to approximately one mile upstream both the North Fork and mainstem Eagle River, with angling allowed along both shores of the North Fork and the north shore only of mainstem Eagle River, (2) the Eagle River Briggs Bridge shore angler site: the south shore of Eagle River from approximately 250 yards below Briggs Bridge upstream to a Department marker adjacent to the downstream edge of the bridge, and (3) the Eagle River Campground shore angler site: the south shore of Eagle River from the downstream edge of the southbound Glenn Highway bridge upstream to a Department marker located approximately 500 yards upstream of the northbound Glenn Highway bridge. Anglers could fish from boats, only

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Year	Sport Fishing Regulations
1993	<p>in waters downstream from and including the North Fork trailhead shore angler site to the Briggs Bridge boat haul out site. Fishing for other salmon was allowed downstream of the southbound Glenn Highway bridge only.</p> <p>Regulations established by BOF restricted king salmon fishing to a 30 day period commencing the Saturday before Memorial Day. Fishing was restricted to that portion of Eagle River upstream of Bailey Bridge to a department marker located approximately adjacent to mile 7.4 of Eagle River Road. In addition, the area located approximately 100 yards on either side of the confluence of the South Fork of Eagle River was closed to fishing from 1 June to 14 August. The North Fork of Eagle River upstream from a department marker located near its confluence with Eagle River was closed to all fishing during the king salmon season.</p>

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Appendix A3. Sport fishing regulations for Campbell Creek, 1957-1993.

Year	Sport Fishing Regulations
1957 - 1959	Closed to sport fishing from 4/1 through 5/27. Bag limit was 10 trout daily or in possession, only two 20 inches or more in length. No regulations on salmon fishing.
1960	Creek was open to salmon fishing, other than for king salmon, from 8/22 through 9/23 only. Bag limits were ten salmon or trout daily, only three of which can be salmon greater than 16 inches in length and only two trout over 20 inches in length.
1961 - 1962	Creek was open to salmon fishing, other than for king salmon, from 8/22 through 9/23 only. Bag limits were ten salmon or trout daily, only three of which can be salmon greater than 16 inches in length and only two trout over 20 inches in length. Anglers were allowed up to 20 resident fish if the excess were Dolly Varden.
1963	Closed season was from 4/1 through 5/25. Bag limit was six coho salmon; three pink, chum or red salmon. For resident fish, the bag limit was 10, only two over 20 inches. Anglers were allowed up to 20 resident fish if the excess were Dolly Varden.
1964 - 1967	Closed season was from 4/1 through the third Friday in May. Open to salmon fishing (except king salmon) from 8/1 through 9/30. Closed to salmon fishing above the Seward Highway. Bag limit was three coho, chum, sockeye, or pink with an additional three coho salmon allowed. For resident fish, the bag limit was 10 fish, only two over 20 inches. Anglers were allowed up to 20 resident fish if the excess were Dolly Varden.
1968	No closed season. Open to salmon fishing (except king salmon) from 8/1 through 9/30. Closed to salmon fishing above the Seward Highway. Bag limit was three salmon 16 inches or greater in length. For resident fish, the bag limit was 10 fish, only two over 20 inches. Anglers were allowed up to 20 resident fish if the excess were Dolly Varden.
1969 - 1970	No closed season. Open to salmon fishing (except king salmon) from 8/1 through 9/30. Closed to salmon fishing above the Seward Highway. Bag limit was three salmon 16 inches or greater in length. For resident fish, the bag limit was 10 fish, only two over 20 inches. The excess Dolly Varden in the bag limit for resident fish is removed.

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Appendix A3. (Page 2 of 2).

Year	Sport Fishing Regulations
1971 - 1981	No closed season. The creek was closed to fishing above the Seward Highway and was closed to salmon fishing throughout the drainage. For resident fish, the bag limit is 10 fish, only two over 20 inches.
1982 - 1984	No closed season. The creek was closed to fishing above the Seward Highway and was closed to salmon fishing throughout the drainage. For resident fish, the bag limit was 10 with only two over 20 inches, except rainbow trout which had a bag limit of five per day, only one 20 inches or greater in length.
1985	Closed to all fishing above the Forks. Closed to salmon fishing below the Forks. For resident fish, the bag limit was 10, only two over 20 inches, except rainbow trout had a bag limit of five per day, only one 20 inches or greater in length.
1986	Entire drainage open to fishing but closed to salmon fishing. For resident fish, the bag limit is 10 fish, only two over 20 inches except for rainbow trout which now has a bag limit of five per day, only one of which can be 20 inches or greater in length.
1987 - 1992	Entire drainage open to fishing but closed to salmon fishing. Upstream of the Forks, unbaited artificial lures only and rainbow trout could not be kept.
1993	Coho salmon angling open from July 26 through August 5, with fishing limited to that portion of Campbell Creek upstream from Dimond Boulevard to a department marker located in the vicinity of Folker Street. Bag and possession limit for coho salmon was 3 and 3. Fishing for all other salmon was closed. Campbell Lake was closed to all fishing.



## APPENDIX B

### Historical effort and harvest data



Appendix B1. Anchorage area sport fishing effort (angler-days), 1977-1992.

Areas	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977
<b><u>SALTWATER</u></b>																
Boat	676	711	321	159	155	980	146	329	1,422	86	*	*	*	*	*	*
Shoreline	2,595	2,117	1,865	1,004	1,035	607	1,575	2,774	4,333	3,222	*	*	*	*	*	*
Saltwater Total	3,271	2,828	2,186	1,163	1,190	1,587	1,721	3,103	5,755	3,308	*	*	*	*	*	*
<b><u>FRESHWATER</u></b>																
Jewel Lake	8,290	7,294	10,235	9,099	7,785	4,908	4,587	7,179	10,289	9,339	9,076	5,819	8,182	7,923	4,157	5,908
Campbell Point Lake	1,878	1,854	2,439	769	2,037	688	1,177	798	1,757	913	921	2,902	2,142	2,814	1,077	3,099
Sand Lake	3,542	3,697	4,814	4,728	3,693	2,065	3,975	5,237	2,309	1,482	4,043	2,278	2,113	2,295	1,702	2,099
Lower Fire Lake	3,702	3,507	6,326	3,771	4,056	3,531	2,783	3,381	2,995	3,015	2,218	2,118	4,955	5,109	1,508	3,132
Mirror Lake	5,249	4,993	5,740	3,255	4,002	5,505	2,920	1,717	4,183	4,118	2,167	2,206	1,414	1,053	495	1,808
Otter Lake	6,423	8,076	9,542	7,570	5,402	13,275	9,036	5,150	13,735	5,445	7,421	5,543	7,040	7,687	2,046	5,197
Clunie Lake	4,108	4,379	6,592	5,384	7,185	6,574	5,076	3,000	6,659	4,032	5,254	4,034	4,498	3,490	1,809	2,977
Gwen Lake	2,433	5,027	3,120	3,255	4,638	3,785	3,027	1,734	3,998	3,963	3,924	2,336	914	1,588	302	837
Sixmile Lake	6,756	4,446	6,539	5,046	8,822	12,677	12,278	9,069	11,075	6,341	5,016	3,468	4,241	2,688	969	1,473
Green Lake	1,803	1,899	3,781	2,973	3,220	5,542	5,168	9,572	7,428	4,790	8,223	4,890	7,868	7,136	1,766	3,278
Hillberg Lake	2,070	2,580	2,801	3,349	2,874	2,879	3,715	4,474	6,926	4,773	4,828	4,498	4,369	2,814	1,680	2,487
Triangle Lake	2,230	1,709	2,130	1,979	1,330	4,473	5,673	2,653	1,489	534	1,535	1,785	2,199	*	*	*
Taku Campbell Lake	1,611	2,446	4,196	3,283	3,365	869	917	1,526	2,208	465	2,167	1,059	1,899	*	*	*
Fish Lake	1,985	1,352	3,440	3,489	3,911	4,890	4,847	1,457	2,175	741	1,365	2,177	1,842a	*	*	*
Cheney Lake	6,594	4,189	6,326	7,523	6,676	5,089	1,468	9,104	6,558	3,446	1,706	1,480	*	*	*	*
Beach Lake	4,780	2,256	2,407	3,067	1,083	3,857	847	381	1,506	913	768	1,001	1,028	*	*	*
Delong Lake	5,474	4,300	3,845	3,527	3,583	2,228	1,590	1,231	1,740	1,176	*	*	*	*	*	*
Other Lakes	2,257	2,592	1,442	2,051	1,652	1,609	1,433	832	1,857	1,068	6,073 <sup>b</sup>	5,296 <sup>b</sup>	5,926 <sup>b</sup>	7,105 <sup>b</sup>	6,807 <sup>b</sup>	6,489 <sup>b</sup>
Lakes Subtotal	67,923	66,596	85,715	74,118	75,314	84,444	70,517	68,495	88,887	56,554	66,705	52,890	60,630	51,702	24,318	38,784
Ship Creek	40,513	29,768	15,112	16,424	14,115	11,989	4,618	4,890	3,647	1,844	2,695	2,293	4,441	4,150	1,551	1,156
Bird Creek	11,352	7,551	9,138	5,844	9,532	5,614	12,507	8,497	6,843	3,325	2,081	2,946	3,927	2,971	1,896	7,389
Campbell Creek	1,515	1,977	3,983	1,942	4,729	1,485	2,217	2,272	1,824	1,017	*	*	*	*	*	*
Twentymile River	4,257	4,178	4,537	4,043	4,820	5,505	6,452	6,676	6,207	4,790	7,489	7,429	8,582	3,899	2,736	6,403
Eagle River	4,908	1,106	2,002	2,017	1,273	1,684	2,645	1,838	5,387	2,205	3,037 <sup>b</sup>	2,060 <sup>b</sup>	2,085 <sup>b</sup>	2,703 <sup>b</sup>	646 <sup>b</sup>	1,328 <sup>b</sup>
Other Streams	4,561	3,486	2,537	4,042	5,026	3,344	2,995	1,214	1,656	2,553						
Streams Subtotal	67,106	48,066	37,309	33,312	39,495	29,621	31,434	25,387	25,564	15,734	15,302	14,728	19,035	13,723	6,829	16,276
Freshwater Total	138,300	114,662	123,024	107,430	114,809	114,065	101,951	93,882	114,451	72,288	82,007	67,618	79,665	65,425	31,147	55,060
AREA TOTAL	141,571	117,490	125,210	108,593	115,999	115,652	103,672	96,985	120,206	75,596	82,007	67,618	79,665	65,425	31,147	55,060

<sup>a</sup> Fish and Cheney Lakes combined

<sup>b</sup> Other Lakes and Other Streams combined

\* Data not broken out by site but included in total

Appendix B2. Anchorage area rainbow trout sport fishing harvest, 1977-1992.

Areas	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977
<b>FRESHWATER</b>																
Jewel Lake	3,863	4,747	5,257	6,754	6,676	1,845	3,429	6,086	4,951	8,654	7,525	3,305	5,209	4,081	4,523	1,547
Campbell Point Lake	1,393	1,520	1,796	497	1,746	320	793	347	960	525	1,320	4,167	2,213	1,618	1,034	1,483
Sand Lake	1,148	2,143	3,312	2,542	3,820	505	3,608	4,352	2,307	692	3,689	1,638	2,066	1,036	1,960	653
Lower Fire Lake	2,224	1,919	1,780	1,989	4,675	1,602	1,687	2,324	1,097	2,192	1,352	1,456	4,073	5,535	2,111	1,618
Mirror Lake	2,628	3,053	3,164	2,748	3,038	2,554	1,620	1,196	3,217	3,797	0	0	0	164	215	176
Otter Lake	4,148	10,118	11,964	6,810	4,056	6,117	6,858	6,017	9,689	2,539	6,445	4,474	5,063	6,072	5,385	3,250
Clunie Lake	2,248	5,968	7,960	5,628	5,566	4,146	3,865	1,855	4,402	5,099	7,074	4,167	6,346	5,118	4,696	1,915
Gwen Lake	1,789	4,648	2,208	2,326	2,528	1,651	2,513	832	2,082	3,860	4,328	3,363	0	2,109	452	512
Sixmile Lake	2,121	2,405	2,291	2,458	5,366	3,991	3,507	3,485	2,332	2,948	1,499	0	0	1,245	344	470
Green Lake	443	984	1,846	2,411	1,401	1,049	2,155	4,803	3,255	3,598	4,747	1,935	3,866	3,981	2,348	1,418
Hillberg Lake	475	685	1,763	1,323	1,382	1,107	1,239	1,838	2,457	3,860	2,162	2,759	0	1,991	1,486	1,194
Triangle Lake	301	237	511	1,201	182	1,058	905	555	599	168	1,054	0	0	*	*	*
Taku Campbell Lake	1,203	635	1,615	1,154	3,838	660	592	1,613	1,023	493	1,735	0	0	*	*	*
Fish Lake	792	274	972	1,398	2,638	2,408	1,865	642	1,309	451	814	0	0	*	*	*
Cheney Lake	2,367	2,579	2,340	5,919	4,529	1,146	1,028	2,341	4,015	2,413	635	0	0	*	*	*
Beach Lake	1,599	2,430	2,456	2,148	637	1,884	882	312	1,035	1,238	1,142	1,619	0	*	*	*
Delong Lake	2,375	2,143	1,829	4,193	2,365	1,068	369	902	511	0	*	*	*	*	*	*
Other Lakes	1,591	2,330	3,213	572	2,929	1,438	424	1,127	1,845	1,784	2,348 <sup>a</sup>	1,648 <sup>a</sup>	3,100 <sup>a</sup>	5,345 <sup>a</sup>	5,198 <sup>a</sup>	2,948 <sup>a</sup>
Lakes Subtotal	32,708	48,818	56,277	52,071	57,372	34,549	37,339	40,627	47,086	44,311	47,869	30,531	31,936	38,295	29,752	17,184
Ship Creek	47	62	0	9	200	39	1,307	277	399	63	639	182	620	482	711	257
Bird Creek	24	12	16	9	36	10	101	87	0	0	0	0	0	0	0	0
Campbell Creek	277	199	1,697	732	1,637	408	815	1,613	374	0	*	*	*	*	*	*
Twentymile River	8	187	0	19	0	10	67	52	0	0	0	0	0	0	0	0
Eagle River	142	0	132	113	0	39	235	260	1,546	283	734 <sup>a</sup>	201 <sup>a</sup>	585 <sup>a</sup>	482 <sup>a</sup>	0 <sup>a</sup>	292 <sup>a</sup>
Other Streams	111	25	313	244	619	204	0	104	187	21	*	*	*	*	*	*
Streams Subtotal	609	485	2,158	1,126	2,492	710	2,525	2,393	2,506	367	1,373	383	1,205	964	711	549
Freshwater Total	33,317	49,303	58,435	53,197	59,864	35,259	39,864	43,020	49,592	44,678	49,242	30,914	33,141	39,259	30,463	17,733
AREA TOTAL	33,317	49,303	58,435	53,197	59,864	35,259	39,864	43,020	49,592	44,678	49,242	30,914	33,141	39,259	30,463	17,733

<sup>a</sup> Other Lakes and Other Streams combined

\* Data not broken out by site but included in total

Appendix B3. Anchorage area Dolly Varden/Arctic char sport fishing harvest, 1977-1992.

Areas	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977
<u>SALTWATER</u>																
Boat	0	0	0	0	0	0	0	0	37	0	*	*	*	*	*	*
Shoreline	180	19	16	0	73	0	0	17	62	10	*	*	*	*	*	*
Saltwater Total	180	19	16	0	73	0	0	17	99	10	*	*	*	*	*	*
<u>FRESHWATER</u>																
Jewel Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Campbell Point Lake	107	49	66	0	0	0	0	0	0	0	0	0	0	0	0	0
Sand Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lower Fire Lake	0	0	0	281	36	0	67	0	12	0	0	0	0	0	0	0
Mirror Lake	500	282	0	281	0	0	0	0	0	0	0	0	0	0	0	0
Otter Lake	0	0	0	122	0	0	56	0	37	315	0	0	86	45	43	0
Clunie Lake	705	418	363	0	0	0	0	0	0	0	0	0	0	0	0	0
Gwen Lake	90	39	132	0	0	0	0	0	0	0	0	0	0	0	0	0
Sixmile Lake	213	0	49	9	36	0	0	69	62	0	0	0	0	0	0	0
Green Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hillberg Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Triangle Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	*
Taku Campbell Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	*
Fish Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	*
Cheney Lake	0	0	0	0	36	36	45	0	62	0	0	0	0	*	*	*
Beach Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	*
Delong Lake	0	0	0	0	0	0	0	0	0	0	*	*	*	*	*	*
Other Lakes	0	10	33	3 8	0	0	0	0	0	0	0	0	0	0	0	0
Lakes Subtotal	1,615	798	643	731	108	36	168	69	173	315	0	0	86	45	43	0
Ship Creek	33	350	82	75	146	163	145	52	100	168	210	441	275	754	689	249
Bird Creek	147	10	33	188	127	109	134	121	449	220	105	125	207	300	689	676
Campbell Creek	49	107	445	291	1,564	181	302	1,127	150	31	*	*	*	*	*	*
Twentymile River	311	185	396	300	327	254	458	607	187	294	472	1,610	413	473	1,055	945
Eagle River	573	584	330	732	637	543	983	225	5,674	1,269	1,247	1,245	818	1,300	1,357	868
Other Streams	361	467	263	329	654	525	235	121	149	577	859	1,581	1,808	891	431	1,302
Streams Subtotal	1,474	1,703	1,549	1,915	3,455	1,775	2,257	2,253	6,709	2,559	2,893	5,002	3,607	3,718	4,221	4,040
Freshwater Total	3,089	2,501	2,192	2,646	3,563	1,811	2,425	2,322	6,882	2,874	2,893	5,002	3,607	3,763	4,264	4,040
AREA TOTAL	3,269	2,520	2,208	2,646	3,636	1,811	2,425	2,339	6,981	2,884	2,893	5,002	3,607	3,763	4,264	4,040

\* Data not broken out by site but included in total

Appendix B4. Anchorage area Arctic grayling sport fishing harvest, 1977-1992.

Areas	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977
<u>FRESHWATER</u>																
Jewel Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Campbell Point Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sand Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lower Fire Lake	135	20	511	66	819	0	0	0	0	0	0	0	0	0	0	0
Mirror Lake	0	0	0	0	0	0	0	0	0	0	0	48	77	9	0	187
Otter Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clunie Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gwen Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sixmile Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hillberg Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Triangle Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	*
Taku Campbell Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	*
Fish Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	*
Cheney Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	*
Beach Lake	270	89	0	0	0	0	0	0	0	0	0	0	0	*	*	*
Delong Lake	0	0	0	0	0	0	0	0	0	0	*	*	*	*	*	*
Other Lakes	8	79	16	0	0	0	0	0	0	0	0	0	0	0	0	0
Lakes Subtotal	413	188	527	66	819	0	0	0	0	0	0	48	77	9	0	187
Ship Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bird Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Campbell Creek	0	0	0	0	0	0	0	0	0	0	*	*	*	*	*	*
Twentymile River	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eagle River	0	30	49	0	0	0	34	0	75	0	0	0	0	0	0	0
Other Streams	0	20	0	0	182	18	134	0	187	0	210	67	0	9	0	0
Streams Subtotal	0	50	49	0	182	18	168	0	262	0	210	67	0	9	0	0
Freshwater Total	413	238	49	66	1,001	18	168	0	262	0	210	115	77	18	0	187
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AREA TOTAL	413	426	576	66	1,001	18	168	0	262	0	210	115	77	18	0	187

\* Data not broken out by site but included in total

Appendix B5. Anchorage area landlocked salmon (chinook and coho) sport fishing harvest, 1977-1992.

Areas	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977
<u>FRESHWATER</u>																
Jewel Lake	2,574	2,688	1,154	3,311	62	362	134	0	0	0	0	0	0	0	0	0
Campbell Point Lake	162	83	231	141	186	0	0	0	0	0	0	0	0	0	0	0
Sand Lake	2,153	2,588	2,868	4,690	588	1,105	123	0	0	0	0	0	0	0	0	0
Lower Fire Lake	0	0	0	0	0	0	0	0	62	0	0	0	0	0	0	0
Mirror Lake	1,828	265	231	0	0	0	0	0	62	304	1,593	1,092	1,266	0	0	*
Otter Lake	930	1,360	330	938	681	362	235	0	25	0	0	0	0	0	0	0
Clunie Lake	638	697	511	516	155	380	201	399	0	0	0	0	0	0	0	0
Gwen Lake	346	133	181	0	0	0	0	0	0	0	0	0	1,248	0	0	0
Sixmile Lake	357	0	198	122	340	0	34	0	0	21	136	1,390	2,127	209	18	19
Green Lake	281	0	165	206	1,114	0	0	0	0	0	0	0	0	0	0	0
Hillberg Lake	281	0	33	291	0	0	0	0	0	0	0	0	5,028	0	0	0
Triangle Lake	0	0	0	0	0	0	0	0	0	0	0	1,542	1,231	*	*	*
Taku Campbell Lake	0	0	0	0	0	0	0	0	0	63	409	383	1,765	*	*	*
Fish Lake	54	0	0	188	248	0	0	0	0	0	21	1,399	1,825 <sup>a</sup>	*	*	*
Cheney Lake	1,071	2,041	428	2,195	309	0	0	0	848	136	220	604	<sup>a</sup>	*	*	*
Beach Lake	1,385	332	33	159	124	0	0	0	0	0	31	115	370	*	*	*
Delong Lake	1,709	630	412	1,726	557	54	22	0	0	0	*	*	*	*	*	*
Other Lakes	216	0	0	0	57	0	0	0	0	0	147	642	714	0	0	110
Freshwater Total	13,985	10,817	6,775	14,483	4,421	2,263	749	399	997	524	2,557	7,167	15,574	209	18	129
<hr/>																
AREA TOTAL	13,985	10,817	6,775	14,483	4,421	2,263	749	399	997	524	2,557	7,167	15,574	209	18	129

<sup>a</sup> Cheney and Fish Lakes combined

\* Data not broken out by site but included in total

Appendix B6. Anchorage area anadromous chinook salmon<sup>a</sup> sport fishing harvest, 1977-1992.

Areas	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977
<u>SALTWATER</u>																
Boat	31	12	6	11	0	19	11	0	0	0	*	*	*	*	*	*
Shoreline	78	18	6	11	0	0	0	37	25	0	*	*	*	*	*	*
Saltwater Total	109	30	12	22	0	19	11	37	25	0	*	*	*	*	*	*
<u>FRESHWATER</u>																
Ship Creek	2,282	1,127	445	792	587	437	0	0	0	0	0	0	0	0	0	52
Bird Creek	9	0	0	23	0	29	22	12	12	0	0	0	0	0	0	0
Campbell Creek	0	0	0	11	19	0	0	12	12	0	*	*	*	*	*	*
Peters Creek	0	0	0	62	0	0	0	0	0	0	*	*	*	*	*	*
California Creek	0	0	0	6	0	0	0	0	0	0	*	*	*	*	*	*
Glacier Creek	0	0	0	6	0	0	0	0	0	0	*	*	*	*	*	*
Twentymile River	0	6	0	0	0	0	0	0	0	2	0	0	0	0	0	0
Eagle River	48	6	0	28	0	0	0	0	25	0	0	0	0	0	0	0
Other Streams	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Freshwater Total	2,339	1,139	445	928	606	466	22	24	49	2	0	0	0	0	0	52
AREA TOTAL	2,448	1,169	457	950	606	485	33	61	74	2	0	0	0	0	0	52

\* Data not broken out by site but included in total

<sup>a</sup> Includes anadromous chinook salmon less than 16 inches in length

Appendix B7. Anchorage area anadromous coho salmon sport fishing harvest, 1977-1992.

Areas	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977
<u>SALTWATER</u>																
Boat	40	121	0	0	0	54	0	0	187	0	*	*	*	*	*	*
Shoreline	88	13	79	82	0	18	101	535	150	314	*	*	*	*	*	*
Saltwater Total	128	134	79	82	0	72	101	535	337	314	*	*	*	*	*	*
<u>FRESHWATER</u>																
Other Lakes	89	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Ship Creek	1,911	1,168	818	1,467	2,128	779	89	236	312	94	168	220	301	512	151	125
Bird Creek	785	1,099	535	899	1,710	761	994	373	324	94	31	38	26	0	151	0
Campbell Creek	8	25	0	28	0	0	0	0	0	0	*	*	*	*	*	*
Twentymile River	1,684	1,302	787	1,715	2,055	1,050	1,765	709	1,297	712	618	737	439	362	289	996
Eagle River	8	0	0	37	73	0	0	0	12	74	10	0	0	0	0	6
California Creek	0	0	0	37	0	18	34	0	0	10	*	*	*	*	*	*
Eklutna River	*	57	0	28	36	0	0	12	0	0	*	*	*	*	*	*
Fish Creek	0	0	0	28	0	0	0	0	0	0	*	*	*	*	*	*
Peters Creek	219	216	0	0	0	0	112	0	0	0	*	*	*	*	*	*
Glacier Creek	0	114	24	147	200	0	11	0	125	0	*	*	*	*	*	*
Rabbit Creek	*	0	0	37	91	18	0	0	0	0	*	*	*	*	*	*
Placer River	300	152	47	142	36	272	296	112	75	523	*	*	*	*	*	*
Ingram Creek	24	0	118	64	55	0	0	0	0	0	*	*	*	*	*	*
Portage Valley Streams	24	76	48	156	328	54	11	0	0	84	*	*	*	*	*	*
Other Streams	646	50	32	73	18	72	45	75	361	0	744	383	456	100	201	0
Freshwater Total	5,570	4,259	2,409	4,858	6,730	3,024	3,357	1,517	2,506	1,591	1,571	1,474	1,222	974	792	1,127
AREA TOTAL	5,698	4,393	2,488	4,940	6,730	3,096	3,458	2,052	2,843	1,905	1,571	1,474	1,222	974	792	1,127

\* Data not broken out by site but included in total

Appendix B8. Anchorage area pink salmon sport fishing harvest, 1977-1992.

Areas	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977
<u>SALTWATER</u>																
Boat	9	0	35	0	0	0	0	12	125	42	*	*	*	*	*	*
Shoreline	448	9	105	17	0	0	167	0	362	0	*	*	*	*	*	*
Saltwater Total	457	9	140	17	0	0	167	12	487	42	*	*	*	*	*	*
<u>FRESHWATER</u>																
Sixmile Lake	46	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Ship Creek	1,346	353	81	291	564	145	849	25	162	42	0	230	405	91	93	93
Bird Creek	5,899	1,153	3,815	1,155	3,256	1,684	9,159	1,717	2,669	692	1,006	795	2,127	654	913	2,797
Campbell Creek	0	0	0	0	0	0	0	25	0	0	*	*	*	*	*	*
Twentymile River	73	46	81	17	218	145	893	0	350	31	73	48	43	36	31	0
Eagle River	0	0	0	42	0	0	11	0	0	0	0	0	0	0	0	0
California Creek	0	0	0	50	491	0	34	0	0	0	*	*	*	*	*	*
Eklutna River	*	0	0	0	55	0	45	0	0	0	*	*	*	*	*	*
Fish Creek	0	0	0	42	0	0	0	0	0	0	*	*	*	*	*	*
Peters Creek	9	0	12	0	0	0	0	0	0	0	*	*	*	*	*	*
Glacier Creek	137	46	512	0	36	0	0	25	312	315	*	*	*	*	*	*
Indian Creek	55	0	0	0	346	127	56	0	0	0	*	*	*	*	*	*
Rabbit Creek	*	0	0	0	0	0	0	0	0	0	*	*	*	*	*	*
Placer River	18	0	0	0	0	0	13	0	50	10	*	*	*	*	*	*
Ingram Creek	192	0	291	0	255	0	123	0	0	0	*	*	*	*	*	*
Portage Valley Streams	0	0	0	0	0	0	0	0	0	0	*	*	*	*	*	*
Other Streams	669	19	0	17	109	181	314	62	12	0	99	220	26	0	139	63
Freshwater Total	8,444	1,617	4,792	1,614	5,330	2,282	11,497	1,854	3,555	1,090	1,178	1,293	2,601	781	1,176	2,953
AREA TOTAL	8,901	1,626	4,932	1,631	5,330	2,282	11,664	1,866	4,042	1,132	1,178	1,293	2,601	781	1,176	2,953

\* Data not broken out by site but included in total



Appendix B9. Anchorage area sockeye salmon sport fishing harvest, 1977-1992.

Areas	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977
<u>SALTWATER</u>																
Boat	41	148	0	0	0	0	0	12	37	55	*	*	*	*	*	*
Shoreline	501	26	49	60	0	0	0	112	25	123	*	*	*	*	*	*
Saltwater Total	542	174	49	60	0	0	0	124	62	178	*	*	*	*	*	*
<u>FRESHWATER</u>																
Sixmile Creek and Lake	230	44	10	111	36	36	0	37	0	0	0	0	0	0	0	0
Eagle River	16	0	0	0	0	435	0	0	0	0	0	0	0	0	0	0
Ship Creek	0	0	0	0	0	0	0	25	100	0	0	0	0	0	0	0
Campbell Creek	0	0	19	51	0	0	11	0	0	0	*	*	*	*	*	*
Bird Creek	173	78	97	128	236	163	190	261	249	0	0	0	0	0	0	0
Portage Valley Streams	8	9	10	9	0	0	11	0	0	0	*	*	*	*	*	*
Twentymile River	214	331	19	145	200	435	346	62	62	123	178	335	146	204	14	0
Placer River	99	113	10	0	0	346	34	112	25	261	*	*	*	*	*	*
Other Streams	0	0	30	60	0	54	11	100	100	41	94	48	0	0	0	25
Ingram Creek	33	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Freshwater Total	773	575	195	504	472	1,469	603	597	536	425	272	383	146	204	14	25
AREA TOTAL	1,315	749	244	564	472	1,469	603	721	598	603	272	383	146	204	14	25

\* Data not broken out by site but included in total

Appendix B10. Anchorage area chum salmon sport fishing harvest, 1977-1992.

Areas	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977
<u>SALTWATER</u>																
Boat	0	16	11	0	0	0	0	12	0	0	*	*	*	*	*	*
Shoreline	8	0	0	18	0	0	22	0	0	0	*	*	*	*	*	*
Saltwater Total	8	16	11	18	0	0	22	12	0	0	*	*	*	*	*	*
<u>FRESHWATER</u>																
Ship Creek	61	16	11	44	182	54	89	25	0	0	0	0	9	0	0	0
Bird Creek	129	120	136	613	364	290	681	448	125	0	0	0	34	0	0	0
Campbell Creek	0	0	0	0	0	0	0	0	0	0	*	*	*	*	*	*
Twentymile River	38	120	102	44	91	181	112	0	25	0	10	10	43	0	20	0
Fish Creek	0	0	0	27	0	0	0	0	0	0	*	*	*	*	*	*
Placer River	0	24	11	30	0	0	22	0	0	10	*	*	*	*	*	*
Indian Creek	0	0	0	0	0	0	22	0	0	0	*	*	*	*	*	*
California Creek	0	0	0	89	0	54	0	0	0	0	*	*	*	*	*	*
Glacier Creek	0	0	11	44	18	0	0	0	0	0	*	*	*	*	*	*
Portage Valley Streams	8	0	0	0	36	0	0	0	0	0	*	*	*	*	*	*
Eagle River	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0
Peters Creek	38	40	11	0	0	0	34	0	0	0	*	*	*	*	*	*
Eklutna River	0	24	11	62	0	0	0	0	0	0	*	*	*	*	*	*
Other Streams	15	0	0	44	0	0	0	149	12	0	0	19	0	0	0	0
Freshwater Total	289	344	304	997	691	579	960	622	162	10	10	29	86	0	20	0
AREA TOTAL	297	360	315	1,015	691	579	982	634	162	10	10	29	86	0	20	0

\* Data not broken out by site but included in total

Appendix B11. Anchorage area eulachon harvest, 1977-1992.

Areas	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977
<u>SALTWATER</u>																
Boat	0	0	989	0	0	0	0	0	0	0	*	*	*	*	*	*
Shoreline	7,290	4,229	6,674	13,923	35,952	26,932	22,980	42,595	103,143	35,362	*	*	*	*	*	*
Saltwater Total	7,290	4,229	7,663	13,923	35,952	26,932	22,980	42,595	103,143	35,362	*	*	*	*	*	*
<u>FRESHWATER</u>																
Lakes Subtotal	0	0	0	0	0	0	0	0	5,489	0	0	0	0	0	0	0
Ship Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bird Creek	0	0	0	0	0	0	0	0	2,495	63	0	0	0	0	0	0
Campbell Creek	0	0	0	0	0	0	0	0	0	0	*	*	*	*	*	*
Twentymile River	35,674	63,365	125,100	88,411	103,556	101,574	100,974	225,540	190,418	60,160	106,850	136,869	75,623	91,349	76,380	189,077
Eagle River	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Streams	0	1,663	264	1,547	0	3,078	0	0	0	21	9,767	13,460	6,001	15,783	35,972	12,132
Streams Subtotal	35,674	65,028	125,364	89,958	103,556	104,652	100,974	225,540	192,913	60,244	116,617	150,329	81,624	107,132	112,352	201,209
Freshwater Total	35,674	65,028	125,364	89,958	103,556	104,652	100,974	225,540	198,402	60,244	116,617	150,329	81,624	107,132	112,352	201,209
<u>AREA TOTAL</u>																
AREA TOTAL	42,964	69,257	133,027	103,881	139,508	131,584	123,954	268,135	301,545	95,606	116,617	150,329	81,624	107,132	112,352	201,209

\* Data not broken out by site but included in total

## APPENDIX C

### Historical stocking records

Appendix C1. Historical stocking records for Bird Creek through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Coho Salmon	Little Susitna	Ft Richardson	5/92	121,416	Smolt
Coho Salmon	Little Susitna	Ft Richardson	5/93	140,394	Smolt

Appendix C2. Historical stocking records for Campbell Creek through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Arctic Grayling	Tolsona Lake	Fire Lake	6/68	5,000	Fry
Steelhead Trout	Anchor River	Ft Richardson	6/85	35,196	Smolt
Steelhead Trout	Anchor River	Ft Richardson	5/86	44,873	Smolt
Rainbow Trout	Big Lake	Clear	7/83	2,517	Catchable
Rainbow Trout	Big Lake	Clear	7/84	10,038	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/86	4,073	Catchable
Rainbow Trout	Swanson River	Elmendorf	56/87	6,269	Catchable
Rainbow Trout	Big Lake	Ft Richardson	56/88	6,303	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/90	7,277	Catchable
Rainbow Trout	Swanson River	Ft Richardson	47/91	5,428	Catchable
Rainbow Trout	Swanson River	Ft Richardson	4/91	335	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,500	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	2,593	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/92	4,108	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/92	3,902	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6-7/93	6,071	Catchable
Coho Salmon	Little Susitna	Ft Richardson	5/92	80,759	Smolt
Coho Salmon	Little Susitna	Ft Richardson	5-6/93	140,691	Smolt

Appendix C3. Historical stocking records for Chester Creek\* through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Coho Salmon	Bear Lake	Ft Richardson	6/71	60	Fingerling
Rainbow Trout	Winthrop NFH	Ft Richardson	6/71	520	Catchable
Rainbow Trout	Ennis NFH	Fire Lake	8/72	500	Fingerling
Rainbow Trout	Winthrop NFH	Ft Richardson	5/73	1,000	Catchable
Rainbow Trout	Big Lake	Ft Richardson	6-7/88	4,390	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7-8/88	119	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/88	50,013	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	5-7/89	4,467	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/90	5,011	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,506	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	2,458	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/92	7,700	Catchable
Rainbow Trout	Big Lake	Ft Richardson	7/92	270	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-7/93	4,606	Catchable

\* Includes all fish stocked in University/APU Lake

Appendix C4. Historical stocking records for Eagle River through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Chinook Salmon	Ship Creek	Elmendorf	5/91	102,100	Smolt
Chinook Salmon	Ship Creek	Elmendorf	5/92	107,695	Smolt
Chinook Salmon	Ship Creek	Elmendorf	6/93	121,066	Smolt



Appendix C5. Historical stocking records for Ingram Creek through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Coho Salmon	Crooked Creek	Trail Lake	9/85	90,190	Fingerling
Coho Salmon	Crooked Creek	Trail Lake	6/86	71,760	Fingerling
Coho Salmon	Crooked Creek	Trail Lake	6/87	160,000	Fingerling
Coho Salmon	Crooked Creek	Trail Lake	6/88	80,344	Fingerling
Coho Salmon	Crooked Creek	Crooked Creek	6/90	80,000	Fingerling
Pink Salmon	Tutka Lagoon	Tutka Bay	5/87	259,200	Fry
Pink Salmon	Tutka Bay	Tutka Bay	5/88	252,975	Fry
Pink Salmon	Tutka Bay	Tutka Bay	6/89	325,380	Fry
Pink Salmon	Tutka Creek	Tutka Bay	6/90	311,101	Fry

Appendix C6. Historical stocking records for Ship Creek through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Winthrop NFH	Ft Richardson	7/69	3,600	Catchable
Chinook Salmon	Green River	Ft Richardson	7/66	166,874	Fingerling
Chinook Salmon	Green River	Ft Richardson	5-6/67	474,516	Fingerling
Chinook Salmon	Crooked Creek	Ft Richardson	5/67	63,840	Smolt
Chinook Salmon	Ship Creek	Ft Richardson	5/68	82,400	Smolt
Chinook Salmon	Ship Creek	Ft Richardson	5/69	95,900	Smolt
Chinook Salmon	Ship Creek	Ft Richardson	5/70	45,700	Smolt
Chinook Salmon	Ship Creek	Ft Richardson	5/71	186,700	Smolt
Chinook Salmon	Ship Creek	Ft Richardson	5/72	71,814	Smolt
Chinook Salmon	Ship Creek	Ft Richardson	6/73	106,413	Smolt
Chinook Salmon	Chignik River	Ft Richardson	6/73	53,721	Smolt
Chinook Salmon	Ship Creek	Ft Richardson	5/74	204,000	Smolt
Chinook Salmon	Ship Creek	Ft Richardson	5-6/75	83,500	Smolt
Chinook Salmon	Ship Creek	Ft Richardson	5/76	63,500	Smolt
Chinook Salmon	Ship Creek	Ft Richardson	6/77	170,516	Smolt
Chinook Salmon	Ship Creek	Elmendorf	5-6/78	274,539	Smolt
Chinook Salmon	Ship Creek	Ft Richardson	5/79	146,414	Smolt
Chinook Salmon	Crooked Creek	Ft Richardson	5/80	100,191	Smolt
Chinook Salmon	Crooked Creek	Elmendorf	5/80	101,067	Smolt
Chinook Salmon	Crooked Creek	Elmendorf	3/84	178,318	Fingerling
Chinook Salmon	Ship Creek	Elmendorf	6/84	150,000	Smolt
Chinook Salmon	Ship Creek	Elmendorf	5/85	118,812	Smolt
Chinook Salmon	Crooked Creek	Elmendorf	6/87	53,212	Smolt
Chinook Salmon	Ship Creek	Elmendorf	5/88	116,336	Smolt
Chinook Salmon	Ship Creek	Elmendorf	6/89	89,986	Smolt
Chinook Salmon	Crooked Creek	Elmendorf	6/89	30,684	Smolt
Chinook Salmon	Ship Creek	Elmendorf	6/90	102,523	Smolt
Chinook Salmon	Ship Creek	Elmendorf	5/91	104,624	Smolt
Chinook Salmon	Ship Creek	Elmendorf	6/91	106,644	Smolt
Chinook Salmon	Ship Creek	Elmendorf	5/92	176,380	Smolt
Chinook Salmon	Ship Creek	Elmendorf	5-6/93	217,557	Smolt

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Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Coho Salmon	Big Creek	Ft Richardson	4/68	129,300	Smolt
Coho Salmon	Eagle Creek	Ft Richardson	5/69	112,400	Smolt
Coho Salmon	Bear Lake	Ft Richardson	5/70	177,200	Smolt
Coho Salmon	Bear Lake	Ft Richardson	5/71	30,400	Smolt
Coho Salmon	Lake Miam	Ft Richardson	5/72	87,700	Smolt
Coho Salmon	Ship Creek	Ft Richardson	5/73	77,100	Smolt
Coho Salmon	Lake Rose Tea	Ft Richardson	5/74	90,500	Smolt
Coho Salmon	U Station L	Ft Richardson	5/75	106,100	Smolt
Coho Salmon	Bear Lake	Ft Richardson	5/76	54,400	Smolt
Coho Salmon	Ship Creek	Fire Lake	6/76	67,300	Fry
Coho Salmon	Halibut Cove	Elmendorf	6/78	44,701	Smolt
Coho Salmon	Seward Lagoon	Elmendorf	6/78	66,353	Smolt
Coho Salmon	Ship Creek	Elmendorf	5/87	56,473	Smolt
Coho Salmon	Ship Creek	Elmendorf	5/88	58,820	Smolt
Coho Salmon	Ship Creek	Elmendorf	5/89	56,841	Smolt
Coho Salmon	Ship Creek	Elmendorf	5/90	64,006	Smolt
Coho Salmon	Ship Creek	Elmendorf	5/91	57,800	Smolt
Coho Salmon	Ship Creek	Elmendorf	5/92	66,752	Smolt
Coho Salmon	Ship Creek	Elmendorf	5/93	54,764	Smolt

Appendix C7. Historical stocking records for Alder Lake  
near Portage through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Swanson River	Ft Richardson	5-7/93	8,410	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/93	10	Brood

Appendix C8. Historical stocking records for Beach Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Arctic Grayling	Moose Lake	Clear	10/89	4,000	Fingerling
Arctic Grayling	Moose Lake	Clear	8/90	4,000	Fingerling
Arctic Grayling	Moose Lake	Clear	9/91	4,000	Fingerling
Arctic Grayling	Moose Lake	Clear	9/93	7,000	Fingerling
Rainbow Trout	Winthrop NFH	Ft Richardson	5/73	5,100	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/74	3,900	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/75	4,000	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	6/76	4,000	Catchable
Rainbow Trout	Willamette H	Ft Richardson	6/77	5,017	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/78	612	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	6/79	4,026	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/80	8	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/81	5,002	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	2,500	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/83	2,114	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/84	1,698	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5/85	2,540	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/86	2,485	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/87	4,810	Catchable
Rainbow Trout	Big Lake	Ft Richardson	6-7/88	5,298	Catchable
Rainbow Trout	Big Lake	Ft Richardson	8/88	8,890	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	7/88	9	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-8/89	6,583	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/89	26	Brood
Rainbow Trout	Big Lake	Ft Richardson	8/89	7	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/90	4,420	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/90	152	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,538	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	1,504	Catchable
Rainbow Trout	Big Lake	Ft Richardson	7/91	355	Brood
Rainbow Trout	Swanson River	Ft Richardson	8/91	100	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/92	4,011	Catchable
Rainbow Trout	Big Lake	Ft Richardson	7/92	300	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-6/93	3,039	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/93	210	Brood
Coho Salmon	Seward Lagoon	Ft Richardson	6/80	4,921	Catchable
Chinook Salmon	Crooked Creek	Elmendorf	9/88	3,227	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/90	3,104	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/91	3,076	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/92	3,037	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	12/93	3,168	Catchable

Appendix C9. Historical stocking records for Campbell Point Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Arctic Grayling	Tolsona Lake	Fire Lake	6/67	25,000	Fry
Rainbow Trout	Winthrop NFH	Ft Richardson	6/67	520	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/69	500	Catchable
Rainbow Trout	Roaring River	Fire Lake	6/72	5,000	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/73	5,000	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/74	5,000	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/75	5,000	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	5-7/76	3,800	Catchable
Rainbow Trout	Willamette H	Ft Richardson	5/77	1,697	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	6/77	13	Brood
Rainbow Trout	Ennis NFH	Elmendorf	6/77	24	Brood
Rainbow Trout	Alaska-Ennis	Elmendorf	7/77	5,219	Fingerling
Rainbow Trout	Alaska-Ennis	Fire Lake	7/77	4,621	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/78	4,916	Catchable
Rainbow Trout	Ennis NFH	Elmendorf	6/78	77	Brood
Rainbow Trout	Alaska-Ennis	Ft Richardson	5-6/79	3,223	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/79	762	Catchable
Rainbow Trout	Talarik Creek	Ft Richardson	6/80	4,987	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/81	5,356	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	4,116	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/83	4,000	Catchable
Rainbow Trout	Swanson River	Elmendorf	9/83	12,148	Fingerling
Rainbow Trout	Swanson River	Elmendorf	5/84	3,861	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/86	2,606	Catchable
Rainbow Trout	Swanson River	Elmendorf	5-6/87	5,067	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5-7/88	4,988	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/88	7	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/89	4,998	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/90	5,175	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,567	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	2,527	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/91	100	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/92	5,017	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5-7/93	3,299	Catchable
Chinook Salmon	Crooked Creek	Elmendorf	6/85	3,000	Fingerling
Chinook Salmon	Willow Creek	Ft Richardson	11/90	1,587	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/91	1,617	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/92	1,986	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/93	1,711	Catchable
Arctic Char	Aleknagik Lake	Clear	10/89	500	Catchable
Arctic Char	Aleknagik Lake	Clear	10/90	1,000	Catchable
Arctic Char	Aleknagik Lake	Clear	9/91	1,000	Sub-catch
Arctic Char	Aleknagik Lake	Clear	10/91	1,000	Sub-catch

Appendix C10. Historical stocking records for Cheney Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Steelhead Trout	Anchor River	Ft Richardson	7/88	4,054	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	2,528	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/83	7,235	Catchable
Rainbow Trout	Swanson River	Elmendorf	9/83	17,255	Fingerling
Rainbow Trout	Swanson River	Elmendorf	5/84	5,694	Catchable
Rainbow Trout	Big Lake	Elmendorf	6/85	5,552	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/85	100	Brood
Rainbow Trout	Big Lake	Ft Richardson	6-7/86	5,059	Catchable
Rainbow Trout	Swanson River	Elmendorf	5-6/87	10,000	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5-7/88	10,152	Catchable
Rainbow Trout	Big Lake	Ft Richardson	8/88	2,500	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	8/88	3,214	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5-8/89	12,352	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/89	50	Brood
Rainbow Trout	Big Lake	Ft Richardson	8/89	13	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-6/90	10,123	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/90	200	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,525	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	2,555	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/91	1,970	Catchable
Rainbow Trout	Big Lake	Ft Richardson	7/91	353	Brood
Rainbow Trout	Swanson River	Ft Richardson	8/91	100	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/92	4,942	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/92	5,064	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/92	301	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-7/93	11,068	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6,9/93	479	Brood
Coho Salmon	Blind Slough	Elmendorf	6/76	20,000	Fingerling
Coho Salmon	Seward Lagoon	Fire Lake	7/77	50,000	Fingerling
Coho Salmon	Seward Lagoon	Elmendorf	6/78	20,100	Fingerling
Coho Salmon	Seward Lagoon	Ft Richardson	5/79	20,100	Fingerling
Coho Salmon	Seward Lagoon	Ft Richardson	5/80	5,014	Catchable
Coho Salmon	Caswell Creek	Ft Richardson	6/89	50,031	Fingerling
Coho Salmon	Little Susitna	Ft Richardson	6/92	30,529	Fingerling
Chinook Salmon	Ship Creek	Elmendorf	5/81	20,795	Fingerling
Chinook Salmon	Crooked Creek	Elmendorf	9/88	5,340	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	9/89	7,540	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/90	3,030	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/91	5,206	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/92	7,398	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	11/93	3,029	Catchable

Appendix C11. Historical stocking records for Clunie Lake  
on Fort Richardson through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Winthrop NFH	Ft Richardson	5-6/71	2,000	Catchable
Rainbow Trout	Ennis NFH	Fire Lake	8/71	2,500	Fingerling
Rainbow Trout	Roaring River	Fire Lake	6/72	10,300	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/73	12,900	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/74	10,100	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/75	10,000	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	5-6/76	9,000	Catchable
Rainbow Trout	Willamette H	Ft Richardson	5-6/77	5,060	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/78	9,355	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5-6/79	8,975	Catchable
Rainbow Trout	Talarik Creek	Ft Richardson	6/80	10,257	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/81	5,000	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	9,999	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/83	8,348	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/84	7,052	Catchable
Rainbow Trout	Big Lake	Ft Richardson	6/85	7,961	Catchable
Rainbow Trout	Swanson River	Elmendorf	7/85	27,772	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	6-7/86	8,928	Catchable
Rainbow Trout	Swanson River	Elmendorf	5-6/87	10,357	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/87	20,004	Fingerling
Rainbow Trout	Big Lake	Ft Richardson	5-7/88	8,049	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/88	15	Brood
Rainbow Trout	Big Lake	Ft Richardson	8/88	6,087	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	5-8/89	10,737	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/89	26	Brood
Rainbow Trout	Big Lake	Ft Richardson	8/89	61	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-8/90	8,239	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/90	51	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,532	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	2,544	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/92	8,106	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5,7/93	4,809	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/93	109	Brood
Coho Salmon	Big Creek H	Ft Richardson	4/68	2,000	Catchable
Coho Salmon	Eagle Creek H	Ft Richardson	5/69	9,700	Catchable
Coho Salmon	Bear Lake	Elmendorf	6/93	17,600	Catchable
Chinook Salmon	Crooked Creek	Trail Lake	5/84	10,000	Fingerling
Chinook Salmon	Crooked Creek	Elmendorf	9/88	4,756	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	9/89	3,891	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/90	4,096	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/91	4,232	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/92	3,937	Catchable

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Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Arctic Char	Aleknagik Lake	Clear	10/89	1,000	Catchable
Arctic Char	Aleknagik Lake	Clear	10/90	500	Catchable
Arctic Char	Aleknagik Lake	Clear	10/91	1,250	Sub-catch
Arctic Char	Aleknagik Lake	Clear	9/92	2,000	Sub-catch
Arctic Char	Aleknagik Lake	Clear	9/93	1,000	Catchable

Appendix C12. Historical stocking records for Connors Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Arctic Grayling	Tolsona Lake	Fire Lake	6/70	29,900	Fry
Arctic Grayling	Tolsona Lake	Fire Lake	7/72	20,000	Fry
Arctic Grayling	Tolsona Lake	Fire Lake	6/73	20,000	Fry

Appendix C13. Historical stocking records for Delong Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Arctic Grayling	Tolsona Lake	Fire Lake	6/69	12,000	Fry
Steelhead Trout	Anchor River	Ft Richardson	7/88	4,143	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/66	750	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/67	1,500	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/69	2,500	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/71	500	Catchable
Rainbow Trout	Roaring River	Fire Lake	6/72	5,100	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/73	5,000	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	5/74	1,000	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/75	5,100	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/81	2,680	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	4,985	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/83	6,223	Catchable
Rainbow Trout	Swanson River	Elmendorf	9/83	10,263	Fingerling
Rainbow Trout	Swanson River	Elmendorf	5/84	5,260	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/85	3,306	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/86	5,900	Catchable
Rainbow Trout	Swanson River	Elmendorf	5-6/87	7,228	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5-7/88	7,446	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/88	9	Brood
Rainbow Trout	Big Lake	Ft Richardson	8/88	1,970	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	8/88	4,243	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5-8/89	12,118	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/89	52	Brood
Rainbow Trout	Big Lake	Ft Richardson	8/89	13	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-7/90	10,085	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/90	201	Brood
Rainbow Trout	Big Lake	Ft Richardson	8/90	151	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,513	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	4,916	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/91	201	Brood
Rainbow Trout	Big Lake	Ft Richardson	9/91	605	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/92	4,972	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/92	5,015	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/92	2,531	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/92	300	Brood
Rainbow Trout	Swanson River	Ft Richardson	7/92	2,531	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/92	300	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-7,9/93	10,417	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6,9/93	551	Brood

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Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Coho Salmon	Seward Lagoon	Ft Richardson	5/80	5,000	Catchable
Coho Salmon	Crooked Creek	Ft Richardson	6/91	8,593	Fingerling
Chinook Salmon	Crooked Creek	Elmendorf	6/85	3,000	Fingerling
Chinook Salmon	Crooked Creek	Elmendorf	9/88	5,036	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	9/89	3,081	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/90	5,051	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/91	5,068	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/92	7,626	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	12/93	5,066	Catchable

Appendix C14. Historical stocking records for Dishno Lake  
on Fort Richardson through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Swanson River	Elmendorf	5/83	861	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/84	620	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5/85	1,148	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/86	994	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/87	950	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5/88	1,000	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/89	1,015	Catchable

Appendix C15. Historical stocking records for Eklutna Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Swanson River	Ft Richardson	6/87	920,000	Fry
Rainbow Trout	Big Lake	Ft Richardson	7/87	31,726	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	8/87	428,588	Fingerling
Rainbow Trout	Big Lake	Ft Richardson	6/88	350,000	Fry
Rainbow Trout	Swanson River	Ft Richardson	7/88	207,837	Fry
Rainbow Trout	Swanson River	Ft Richardson	6/89	770,278	Fry
Rainbow Trout	Big Lake	Ft Richardson	6/89	212,000	Fry
Rainbow Trout	Big Lake	Ft Richardson	7/89	45,400	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	8/89	356,972	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	8/90	50,016	Fingerling
Rainbow Trout	Big Lake	Ft Richardson	5/91	314,627	Fry
Rainbow Trout	Swanson River	Ft Richardson	5/91	175,133	Fry
Rainbow Trout	Swanson River	Ft Richardson	6/91	1,637,705	Fry
Rainbow Trout	Big Lake	Ft Richardson	6/91	277,951	Fry
Rainbow Trout	Big Lake	Ft Richardson	6/92	168,241	Fingerling
Rainbow Trout	Swanson/Big L	Ft Richardson	6/92	758,588	Fry
Rainbow Trout	Swanson River	Ft Richardson	9/92	59,605	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	6/93	496,772	Fry
Rainbow Trout	Swanson River	Ft Richardson	8-9/93	112,084	Fingerling

Appendix C16. Historical stocking records for Fish Lake on Elmendorf through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Winthrop NFH	Ft Richardson	6/66	2,000	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/74	2,100	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5-8/75	2,300	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	6/76	2,100	Catchable
Rainbow Trout	Willamette H	Ft Richardson	6/77	2,004	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/78	2,002	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5-6/79	2,036	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	1,037	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/83	2,114	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/84	1,756	Catchable
Rainbow Trout	Big Lake	Elmendorf	5/85	1,044	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/85	100	Brood
Rainbow Trout	Swanson River	Ft Richardson	6/86	2,520	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/87	500	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5/88	768	Catchable
Rainbow Trout	Big Lake	Ft Richardson	8/88	420	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	8/89	1,108	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/92	1,021	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/93	822	Catchable
Coho Salmon	Seward Lagoon	Ft Richardson	5/80	2,980	Catchable
Coho Salmon	Seward Lagoon	Ft Richardson	6/81	3,500	Fingerling
Coho Salmon	Bear Lake	Elmendorf	5/93	4,000	Catchable
Chinook Salmon	Crooked Creek	Elmendorf	9/88	604	Catchable

Appendix C17. Historical stocking records for Green Lake on Elmendorf through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Winthrop NFH	Ft Richardson	6/69	2,650	Catchable
Rainbow Trout	Winthrop NFH	Elmendorf	5/73	5,100	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	5-6/76	5,000	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	1/76	459	Brood
Rainbow Trout	Ennis NFH	Elmendorf	6/76	10	Brood
Rainbow Trout	Willamette H	Ft Richardson	5-6/77	2,385	Catchable
Rainbow Trout	Ennis NFH	Elmendorf	6/77	11	Brood
Rainbow Trout	Talarik Creek	Elmendorf	11/77	1,172	Brood
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/78	5,025	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5-6/79	5,994	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/79	936	Catchable
Rainbow Trout	Talarik Creek	Ft Richardson	6/80	5,013	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/81	2,589	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	5,851	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	24	Brood
Rainbow Trout	Swanson River	Elmendorf	5/83	5,002	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/84	4,203	Catchable
Rainbow Trout	Big Lake	Elmendorf	6/85	343	Catchable
Rainbow Trout	Big Lake	Ft Richardson	6/85	5,254	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/86	995	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/87	1,161	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5/88	1,600	Catchable
Rainbow Trout	Big Lake	Ft Richardson	8/88	1,870	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	5/89	1,993	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/90	2,006	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/91	1,014	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	1,034	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/92	2,049	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/93	1,600	Catchable
Coho Salmon	Bear Lake	Elmendorf	5/93	10,180	Catchable
Chinook Salmon	Crooked Creek	Elmendorf	9/88	3,580	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/91	1,007	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/92	1,043	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	12/93	1,051	Catchable



Appendix C18. Historical stocking records for Gwen Lake on Fort Richardson through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Steelhead Trout	Anchor River	Ft Richardson	7/88	3,169	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/69	600	Catchable
Rainbow Trout	Roaring River	Ft Richardson	6/72	1,200	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/73	3,200	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/74	3,300	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	5/74	700	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/75	4,000	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	5-6/76	4,000	Catchable
Rainbow Trout	Willamette H	Ft Richardson	5-6/77	2,000	Catchable
Rainbow Trout	Ennis NFH	Elmendorf	6/77	12	Brood
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/78	4,015	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5-6/79	4,027	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/81	4,937	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	5,000	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/83	4,342	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/84	3,530	Catchable
Rainbow Trout	Big Lake	Ft Richardson	6/85	4,076	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/86	3,998	Catchable
Rainbow Trout	Swanson River	Elmendorf	5-6/87	4,956	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5-7/88	4,089	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/89	4,767	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5-7/90	4,776	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/90	51	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/91	761	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	2,555	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/92	4,985	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5-6/93	3,755	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/93	100	Brood
Coho Salmon	Seward Lagoon	Ft Richardson	5/80	7,943	Catchable
Chinook Salmon	Crooked Creek	Elmendorf	9/88	2,060	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/90	2,090	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/92	2,004	Catchable
Arctic Char	Aleknagik Lake	Clear	10/89	500	Catchable
Arctic Char	Aleknagik Lake	Clear	10/90	500	Catchable
Arctic Char	Aleknagik Lake	Clear	10/91	1,250	Sub-catch
Arctic Char	Aleknagik Lake	Clear	9/92	1,000	Sub-catch

Appendix C19. Historical stocking records for Hideaway Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Winthrop NFH	Ft Richardson	6/67	302	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/68	300	Catchable

Appendix C20. Historical stocking records for Hillberg Lake on Elmendorf through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Winthrop NFH	Ft Richardson	6/69	2,650	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/74	2,300	Catchable
Rainbow Trout	Winthrop NFH	Elmendorf	5/74	2,600	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5-8/75	7,500	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	6-8/75	635	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	5-6/76	5,900	Catchable
Rainbow Trout	Willamette H	Ft Richardson	5/77	1,418	Catchable
Rainbow Trout	Ennis NFH	Elmendorf	6/77	11	Brood
Rainbow Trout	Talarik Creek	Elmendorf	11/77	500	Brood
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/78	5,010	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5-6/79	3,291	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/81	2,680	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	2,273	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/83	3,826	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/84	2,308	Catchable
Rainbow Trout	Big Lake	Ft Richardson	6/85	3,121	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/85	200	Brood
Rainbow Trout	Swanson River	Ft Richardson	7/86	995	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/87	1,199	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5/88	1,414	Catchable
Rainbow Trout	Big Lake	Ft Richardson	8/88	1,120	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	5/89	1,510	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/90	1,500	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/91	786	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	771	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/92	1,500	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/93	1,200	Catchable
Coho Salmon	Seward Lagoon	Ft Richardson	5/80	7,973	Catchable
Coho Salmon	Bear Lake	Elmendorf	6/91	6,112	Fingerling
Coho Salmon	Bear Lake	Elmendorf	5/93	8,000	Catchable
Chinook Salmon	Crooked Creek	Elmendorf	9/88	1,919	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/91	512	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/92	1,071	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	12/93	1,156	Catchable

Appendix C21. Historical stocking records for Jewel Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Arctic Grayling	Tolsona Lake	Fire Lake	6/69	13,000	Fry
Steelhead Trout	Anchor River	Ft Richardson	7/88	5,842	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5-7/66	5,301	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/67	8,129	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/68	2,500	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/69	5,100	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/71	5,000	Catchable
Rainbow Trout	Ennis NFH	Fire Lake	6/71	9,000	Fingerling
Rainbow Trout	Roaring River	Fire Lake	5/72	10,000	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/73	16,300	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/74	1,200	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	5/74	5,300	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	7/74	5,000	Fingerling
Rainbow Trout	Ennis NFH	Ft Richardson	1/75	600	Brood
Rainbow Trout	Winthrop NFH	Ft Richardson	5/75	8,500	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	6/75	400	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	2-6/76	509	Brood
Rainbow Trout	Ennis NFH	Ft Richardson	5-6/76	6,600	Catchable
Rainbow Trout	Willamette H	Ft Richardson	6/77	1,494	Catchable
Rainbow Trout	Ennis NFH	Elmendorf	6/77	44	Brood
Rainbow Trout	Alaska-Ennis	Ft Richardson	7/77	11,736	Fingerling
Rainbow Trout	Talarik Creek	Elmendorf	11/77	700	Brood
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/78	8,736	Catchable
Rainbow Trout	Ennis NFH	Elmendorf	6/78	78	Brood
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/79	3,015	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/79	6,050	Catchable
Rainbow Trout	Talarik Creek	Elmendorf	6/80	5,506	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/80	175	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-6/81	5,774	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	10,000	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	83	Brood
Rainbow Trout	Swanson River	Elmendorf	5/83	16,201	Catchable
Rainbow Trout	Swanson River	Elmendorf	9/83	15,530	Fingerling
Rainbow Trout	Swanson River	Elmendorf	5/84	14,528	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/85	6,786	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/86	7,844	Catchable
Rainbow Trout	Swanson River	Elmendorf	5-6/87	9,996	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5-6/88	9,430	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/88	4,063	Catchable
Rainbow Trout	Big Lake	Ft Richardson	8/88	2,620	Fingerling

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Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Swanson River	Ft Richardson	5-8/89	20,485	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/89	49	Brood
Rainbow Trout	Big Lake	Ft Richardson	8/89	12	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-6/90	14,067	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5-7/90	210	Brood
Rainbow Trout	Big Lake	Ft Richardson	12/90	20	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-7/90	210	Brood
Rainbow Trout	Big Lake	Ft Richardson	12/90	20	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,495	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	408	Brood
Rainbow Trout	Swanson River	Ft Richardson	6/91	1,228	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	4,955	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/91	2,855	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/91	174	Brood
Rainbow Trout	Swanson River	Ft Richardson	8/91	200	Brood
Rainbow Trout	Big Lake	Ft Richardson	9/91	635	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/92	10,041	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/92	2,507	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/92	300	Brood
Rainbow Trout	Swanson River	Ft Richardson	7/92	4,099	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/92	1,724	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5-7,9/93	14,725	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6,9/93	557	Brood
Coho Salmon	Little Susitna	Ft Richardson	2/90	102,000	Fry
Coho Salmon	Bear Lake	Elmendorf	6/91	8,593	Fingerling
Coho Salmon	Little Susitna	Ft Richardson	1/92	125,000	Fry
Coho Salmon	Little Susitna	Ft Richardson	6/92	29,061	Fingerling
Coho Salmon	Bear Lake	Elmendorf	6/92	9,472	Fingerling
Chinook Salmon	Crooked Creek	Elmendorf	9/86	8,452	Catchable
Chinook Salmon	Crooked Creek	Elmendorf	9/88	10,220	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	9/89	10,297	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	1/90	30,600	Fingerling
Chinook Salmon	Willow Creek	Ft Richardson	10/90	7,530	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/91	7,027	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/92	14,939	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	12/92	4,939	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	12/93,1/94	12,851	Catchable

Appendix C22. Historical stocking records for Lake Otis through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Swanson River	Ft Richardson	7/86	995	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/87	1,683	Catchable
Rainbow Trout	Big Lake	Ft Richardson	6/88	1,534	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/89	1,507	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/90	1,500	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/91	1,566	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/92	1,485	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/93	1,307	Catchable

Appendix C23. Historical stocking records for Lower  
Explorer Pond near Portage through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Swanson River	Ft Richardson	5/93	2,828	Catchable

Appendix C24. Historical stocking records for Lower Fire Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Arctic Grayling	Moose Lake	Clear	8/87	20,000	Fingerling
Arctic Grayling	Moose Lake	Clear	10/89	7,000	Fingerling
Arctic Grayling	Moose Lake	Clear	8/90	7,000	Fingerling
Arctic Grayling	Moose Lake	Clear	9/91	7,000	Fingerling
Arctic Grayling	Moose Lake	Clear	9/93	7,000	Fingerling
Rainbow Trout	Winthrop NFH	Fire Lake	8/68	675	Fingerling
Rainbow Trout	Winthrop NFH	Fire Lake	9/69	700	Fingerling
Rainbow Trout	Winthrop NFH	Fire Lake	10/72	39,900	Fingerling
Rainbow Trout	Winthrop NFH	Ft Richardson	5/73	2,800	Catchable
Rainbow Trout	Ennis NFH	Fire Lake	7/74	9,600	Fingerling
Rainbow Trout	Ennis NFH	Ft Richardson	2/75	249	Brood
Rainbow Trout	Winthrop NFH	Ft Richardson	5-6/75	1,700	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	6/75	400	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	3/76	330	Brood
Rainbow Trout	Ennis NFH	Ft Richardson	5-7/76	4,000	Catchable
Rainbow Trout	Ennis NFH	Elmendorf	6/76	16	Brood
Rainbow Trout	Willamette H	Ft Richardson	5/77	1,101	Catchable
Rainbow Trout	Alaska-Ennis	Fire Lake	7/77	11,000	Fingerling
Rainbow Trout	Talarik Creek	Elmendorf	11/77	226	Brood
Rainbow Trout	Talarik Creek	Elmendorf	11/77	2,278	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/78	5,000	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5-6/79	8,263	Catchable
Rainbow Trout	Talarik Creek	Ft Richardson	6/80	5,011	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/81	5,000	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	1,788	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/82	50	Brood
Rainbow Trout	Swanson River	Elmendorf	6/82	205	Brood
Rainbow Trout	Swanson River	Elmendorf	5/83	3,719	Catchable
Rainbow Trout	Swanson River	Elmendorf	9/83	19,497	Fingerling
Rainbow Trout	Swanson River	Elmendorf	5/84	4,140	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/85	4,976	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/86	2,461	Catchable
Rainbow Trout	Swanson River	Elmendorf	5-6/87	4,740	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5-6/88	5,018	Catchable
Rainbow Trout	Big Lake	Ft Richardson	8/88	6,290	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	5-8/89	6,618	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/89	35	Brood
Rainbow Trout	Big Lake	Ft Richardson	8/89	9	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-6/90	5,014	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/90	206	Brood

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Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,500	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	2,536	Catchable
Rainbow Trout	Big Lake	Ft Richardson	7/91	365	Brood
Rainbow Trout	Swanson River	Ft Richardson	8/91	100	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/92	5,181	Catchable
Rainbow Trout	Big Lake	Ft Richardson	7/92	300	Brood
Rainbow Trout	Swanson River	Ft Richardson	5,7/93	5,129	Catchable
Rainbow Trout	Swanson Lake	Ft Richardson	6/93	200	Brood
Coho Salmon	Swanson River	Fire Lake	8/66	2,010	Fingerling
Coho Salmon	Swanson River	Fire Lake	8/67	11,500	Fingerling
Coho Salmon	Eagle Creek H	Ft Richardson	5/69	1,000	Catchable
Coho Salmon	Bear Lake	Ft Richardson	8/69	11,500	Fingerling
Chinook Salmon	Green River	Fire Lake	6/66	1,500	Fingerling

Appendix C25. Historical stocking records for Mirror Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Arctic Grayling	Tolsona Lake	Fire Lake	6/74	45,300	Fry
Arctic Grayling	Tolsona Lake	Fire Lake	6/75	20,000	Fry
Arctic Grayling	Tolsona Lake	Fire Lake	6/76	100,000	Fry
Arctic Grayling	Tolsona Lake	Fire Lake	6/77	229,000	Fry
Arctic Grayling	Tolsona Lake	Fire Lake	6/78	75,000	Fry
Rainbow Trout	Winthrop NFH	Ft Richardson	5-7/66	7,688	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/69	15,200	Catchable
Rainbow Trout	Roaring River	Fire Lake	6/72	4,100	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/73	5,000	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	9/74	496	Fingerling
Rainbow Trout	Swanson River	Elmendorf	5/83	13,439	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/84	7,430	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/85	7,546	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/86	2,985	Catchable
Rainbow Trout	Swanson River	Elmendorf	5-6/87	10,151	Catchable
Rainbow Trout	Big Lake	Ft Richardson	6-7/88	8,160	Catchable
Rainbow Trout	Big Lake	Ft Richardson	8/88	6,820	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	7/88	13	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/89	2,456	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5-6/90	10,072	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/90	201	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,604	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	4,787	Catchable
Rainbow Trout	Big Lake	Ft Richardson	7/91	350	Brood
Rainbow Trout	Swanson River	Ft Richardson	8/91	100	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/92	4,964	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/92	5,522	Catchable
Rainbow Trout	Big Lake	Ft Richardson	7/92	300	Brood
Rainbow Trout	Swanson River	Ft Richardson	5,7,9/93	7,620	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6,9/93	517	Brood
Coho Salmon	Swanson River	Fire Lake	6/67	40,010	Fry
Coho Salmon	Bear Creek	Fire Lake	6/68	20,000	Fry
Coho Salmon	Seward Lagoon	Ft Richardson	5-7/80	5,897	Catchable
Coho Salmon	Seward Lagoon	Ft Richardson	6/81	10,004	Fingerling

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Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Chinook Salmon	Willow Creek	Ft Richardson	9/89	5,405	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10-11/90	6,880	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/91	4,981	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/92	10,263	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	12/93	7,480	Catchable
Arctic Char	Aleknagik Lake	Clear	10/89	500	Catchable
Arctic Char	Aleknagik Lake	Clear	10/90	500	Catchable
Arctic Char	Aleknagik Lake	Clear	10/91	1,250	Sub-catch
Arctic Char	Aleknagik Lake	Clear	9/93	1,000	Catchable

Appendix C26. Historical stocking records for Otter Lake\*  
on Fort Richardson through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Arctic Grayling	Moose Lake	Clear	3/92	50	Brood
Rainbow Trout	Winthrop NFH	Ft Richardson	5-6/66	20,077	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6-7/67	16,680	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	7/68	11,800	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/69	52,500	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5-6/71	11,500	Catchable
Rainbow Trout	Ennis NFH	Fire Lake	6/71	5,000	Fingerling
Rainbow Trout	Roaring River	Fire Lake	5/72	10,200	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/73	10,000	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/74	7,600	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	6/74	500	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	7/74	25,000	Fingerling
Rainbow Trout	Ennis NFH	Ft Richardson	1/75	300	Brood
Rainbow Trout	Winthrop NFH	Ft Richardson	5-7/75	9,500	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	7/75	700	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	1/76	493	Brood
Rainbow Trout	Ennis NFH	Elmendorf	6/76	10	Brood
Rainbow Trout	Ennis NFH	Ft Richardson	5-7/76	11,600	Catchable
Rainbow Trout	Willamette H	Ft Richardson	5-6/77	6,055	Catchable
Rainbow Trout	Ennis NFH	Elmendorf	6/77	12	Brood
Rainbow Trout	Talarik Creek	Elmendorf	11/77	200	Brood
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/78	12,036	Catchable
Rainbow Trout	Ennis NFH	Elmendorf	6/78	80	Brood
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/79	4,395	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/79	8,546	Catchable
Rainbow Trout	Talarik Creek	Ft Richardson	6/80	10,931	Catchable
Rainbow Trout	Talarik Creek	Elmendorf	3/81	53	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/81	6,500	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	10/81	20	Brood
Rainbow Trout	Swanson River	Elmendorf	5/82	9,039	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	49	Brood
Rainbow Trout	Swanson River	Elmendorf	5/83	8,721	Catchable
Rainbow Trout	Swanson River	Elmendorf	9/83	11,747	Fingerling
Rainbow Trout	Swanson River	Elmendorf	5/84	9,102	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/85	8,279	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/85	200	Brood
Rainbow Trout	Swanson River	Ft Richardson	6/86	2,983	Catchable
Rainbow Trout	Big Lake	Ft Richardson	7/86	1,245	Catchable
Rainbow Trout	Swanson River	Elmendorf	5-6/87	10,059	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/87	20,082	Fingerling
Rainbow Trout	Big Lake	Ft Richardson	3-6/88	7,091	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/88	6,171	Catchable
Rainbow Trout	Big Lake	Ft Richardson	8/88	6,562	Fingerling

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Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Swanson River	Ft Richardson	6/89	500	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/89	25	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-8/89	13,093	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8-9/89	55,976	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	8/89	18	Brood
Rainbow Trout	Big Lake	Ft Richardson	8/89	9	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-7/90	11,053	Catchable
Rainbow Trout	Big Lake	Ft Richardson	7/90	97	Brood
Rainbow Trout	Swanson River	Ft Richardson	4/91	694	Brood
Rainbow Trout	Big Lake	Ft Richardson	4/91	6	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,511	Brood
Rainbow Trout	Swanson River	Ft Richardson	6/91	5,400	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/91	1,995	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/91	351	Brood
Rainbow Trout	Swanson River	Ft Richardson	9/91	275	Brood
Rainbow Trout	Swanson River	Ft Richardson	4/92	420	Brood
Rainbow Trout	Big Lake	Ft Richardson	4/92	24	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/92	4,871	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/92	4,149	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/92	470	Brood
Rainbow Trout	Swanson River	Ft Richardson	7/92	2,000	Catchable
Rainbow Trout	Big Lake	Ft Richardson	7/92	240	Brood
Rainbow Trout	Swanson River	Ft Richardson	8/92	280	Brood
Rainbow Trout	Swanson River	Ft Richardson	11/92	93,723	Sub-catch
Rainbow Trout	Swanson River	Ft Richardson	5,8/93	5,742	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6,8/93	397	Brood
Coho Salmon	Seward Lagoon	Ft Richardson	10/81	475	Fingerling
Coho Salmon	Seward Lagoon	Elmendorf	7/84	10,000	Fry
Coho Salmon	Caswell Creek	Ft Richardson	6/89	10,280	Fry
Coho Salmon	Fleming Spit	Ft Richardson	6/89	81,673	Fry
Chinook Salmon	Crooked Creek	Elmendorf	9/86	7,846	Catchable
Chinook Salmon	Crooked Creek	Elmendorf	9/88	39,225	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	9/89	5,919	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/90	5,014	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/91	7,314	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/92	15,106	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	12/93	5,400	Catchable

\* Includes all fish stocked in Derby Pond

Appendix C27. Historical stocking records for Portage Valley Lakes through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Swanson River	Elmendorf	5-6/87	4,910	Catchable
Rainbow Trout	Big Lake	Ft Richardson	6-7/88	5,087	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5-7/89	5,181	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/90	5,215	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,493	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	2,491	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/91	515	Catchable
Rainbow Trout	Big Lake	Ft Richardson	7/91	71	Brood
Rainbow Trout	Swanson River	Ft Richardson	6/92	17	Brood
Rainbow Trout	Swanson River	Ft Richardson	6/92	5,213	Catchable

Appendix C28. Historical stocking records for Rabbit Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Swanson River	Ft Richardson	8/90	1,010	Catchable

Appendix C29. Historical stocking records for Sand Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Steelhead Trout	Anchor River	Ft Richardson	7/88	6,000	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/75	5,300	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	5-6/76	4,200	Catchable
Rainbow Trout	Willamette H	Ft Richardson	5/77	1,384	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/78	5,000	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/79	1,304	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/79	2,721	Catchable
Rainbow Trout	Talarik Creek	Ft Richardson	6/80	5,011	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5-7/81	5,255	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	4,006	Catchable
Rainbow Trout	Swanson River	Elmendorf	9/83	24,545	Fingerling
Rainbow Trout	Swanson River	Elmendorf	5/84	7,204	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/85	4,936	Catchable
Rainbow Trout	Big Lake	Ft Richardson	6/85	9,585	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/86	20,099	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/87	5,404	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5-7/88	7,080	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/88	21	Brood
Rainbow Trout	Big Lake	Ft Richardson	8/88	6,700	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	5-8/89	9,767	Catchable
Rainbow Trout	Big Lake	Ft Richardson	8/89	14	Brood
Rainbow Trout	Swanson River	Ft Richardson	8/89	54	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-6/90	7,061	Catchable
Rainbow Trout	Big Lake	Ft Richardson	8/90	150	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,473	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	2,652	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/91	100	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/92	4,844	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/92	2,006	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/92	4,563	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5-7/93	6,431	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/93	253	Brood
Coho Salmon	Caswell Creek	Elmendorf	6/89	40,444	Fry
Chinook Salmon	Crooked Creek	Elmendorf	9/86	8,548	Catchable
Chinook Salmon	Crooked Creek	Elmendorf	9/88	14,510	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	9/89	9,756	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/90	9,973	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/91	10,014	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/92	15,302	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	12/93	9,968	Catchable



Appendix C30. Historical stocking records for Sixmile Lake on Ft. Richardson through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Arctic Grayling	Tolsona Lake	Fire Lake	6/74	100,300	Fry
Rainbow Trout	Elmendorf-SWA	Ft Richardson	9/82	9,980	Fingerling
Rainbow Trout	Elmendorf-SWA	Ft Richardson	5/83	2,857	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/84	1,120	Catchable
Rainbow Trout	Big Lake	Ft Richardson	6/85	1,979	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/86	1,466	Catchable
Rainbow Trout	Swanson River	Ft Richardson	3/87	696	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/87	2,362	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/88	400	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	8/88	4,140	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	5/89	1,473	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/90	1,498	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/91	696	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	800	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/92	1,510	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5,6/93	1,272	Catchable
Coho Salmon	Bear Lake	Elmendorf	7/69	10,000	Fry
Coho Salmon	Blind Slough	Elmendorf	6/76	20	Fingerling
Coho Salmon	Seward Lagoon	Elmendorf	6/77	10,800	Fingerling
Coho Salmon	Seward Lagoon	Elmendorf	7/77	40,800	Catchable
Coho Salmon	Seward Lagoon	Elmendorf	6/78	20,100	Fingerling
Coho Salmon	Seward Lagoon	Elmendorf	5/79	20,100	Catchable
Coho Salmon	Seward Lagoon	Elmendorf	11/79	8,708	Catchable
Coho Salmon	Seward Lagoon	Elmendorf	5/80	5,747	Catchable
Coho Salmon	Seward Lagoon	Elmendorf	6/81	5,500	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/92	423	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	12/93	1,065	Catchable

Appendix C31. Historical stocking records for Spring Lake on Elmendorf through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Swanson River	Elmendorf	5/83	1,683	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/84	1,464	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5/85	1,114	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/86	2,023	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/87	713	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/89	1,015	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/92	1,065	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/93	784	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	10/91	516	Catchable
Chinook Salmon	Willow Creek	Ft Richardson	12/93	505	Catchable
Coho Salmon	Bear Lake	Elmendorf	6/91	4,000	Fingerling
Coho Salmon	Bear Lake	Elmendorf	5/93	8,000	Catchable

Appendix C32. Historical stocking records for Sundi Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Winthrop NFH	Ft Richardson	6/66	750	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/67	1,500	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/89	1,530	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/90	1,508	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/91	1,500	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/92	1,516	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/93	1,283	Catchable

Appendix C33. Historical stocking records for Taku Campbell Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Swanson River	Elmendorf	5/82	2,500	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/83	4,217	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/84	4,867	Catchable
Rainbow Trout	Big Lake	Elmendorf	6/85	303	Catchable
Rainbow Trout	Big Lake	Ft Richardson	6/85	5 095	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/85	100	Brood
Rainbow Trout	Swanson River	Ft Richardson	6-7/86	4,948	Catchable
Rainbow Trout	Swanson River	Elmendorf	5-6/87	5,065	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5-6/88	5,231	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/88	2,391	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5-7/89	4,104	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/89	57	Brood
Rainbow Trout	Big Lake	Ft Richardson	8/89	14	Brood
Rainbow Trout	Swanson River	Ft Richardson	5-7/90	4,043	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/90	203	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,663	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	1,476	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/91	103	Brood
Rainbow Trout	Swanson River	Ft Richardson	5/92	3,177	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/92	1,059	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/92	300	Brood
Rainbow Trout	Big Lake	Ft Richardson	5/93	2,041	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/93	1,341	Catchable
Coho Salmon	Blind Slough	Elmendorf	6/76	20,000	Fingerling
Coho Salmon	Seward Lagoon	Fire Lake	7/77	50,000	Fingerling
Coho Salmon	Seward Lagoon	Elmendorf	6/78	20,100	Fingerling
Coho Salmon	Seward Lagoon	Ft Richardson	5/79	20,100	Fingerling
Coho Salmon	Seward Lagoon	Ft Richardson	6/80	5,014	Catchable
Coho Salmon	Seward Lagoon	Ft Richardson	6/81	10,000	Fingerling
Coho Salmon	Ship Creek	Elmendorf	7/89	15,386	Fingerling
Sockeye Salmon	Meadow Creek	Pathology Lab	9/84	200	Post-Smolt
Sockeye Salmon	Nancy Lake	Pathology Lab	9/84	100	Post-Smolt
Sockeye Salmon	Pick Creek	Pathology Lab	9/84	150	Post-Smolt

Appendix C34. Historical stocking records for Tangle Pond near Portage through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Arctic Grayling	Moose Lake	Clear	9/93	2,000	Fingerling

Appendix C35. Historical stocking records for Thompson Lake on Fort Richardson through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Arctic Char	Aleknagik Lake	Clear	10/90	500	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5-6/66	3,500	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/67	2,400	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/68	5,100	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	6/69	9,600	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5-6/71	1,500	Catchable
Rainbow Trout	Ennis NFH	Fire Lake	8/71	1,500	Fingerling
Rainbow Trout	Roaring River	Ft Richardson	5-6/72	7,400	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/73	5,000	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/74	5,000	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5/75	5,000	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	5-6/76	5,100	Catchable
Rainbow Trout	Willamette H	Ft Richardson	5/77	1,204	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/78	5,009	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5-6/79	4,196	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/81	999	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	1,500	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/83	900	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/84	758	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5/85	1,152	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/86	994	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/87	1,915	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5/88	1,024	Catchable
Rainbow Trout	Swanson River	Ft Richardson	8/89	2,030	Catchable
Rainbow Trout	Swanson River	Ft Richardson	7/90	2,019	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/91	2,017	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/92	1,982	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6,7/93	1,408	Catchable
Coho Salmon	Seward Lagoon	Ft Richardson	5/80	2,537	Catchable

Appendix C36. Historical stocking records for Triangle Lake on Elmendorf through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Winthrop NFH	Ft Richardson	5/74	500	Catchable
Rainbow Trout	Winthrop NFH	Elmendorf	5/74	1,600	Catchable
Rainbow Trout	Winthrop NFH	Ft Richardson	5-8/75	3,300	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	8/75	200	Catchable
Rainbow Trout	Ennis NFH	Ft Richardson	5-6/76	2,000	Catchable
Rainbow Trout	Willamette H	Ft Richardson	5/77	813	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5/78	2,013	Catchable
Rainbow Trout	Alaska-Ennis	Ft Richardson	5-6/79	2,104	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/82	2,141	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/83	1,683	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/84	1,387	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5/85	964	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/86	1,988	Catchable
Rainbow Trout	Swanson River	Elmendorf	5/87	579	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5/88	808	Catchable
Rainbow Trout	Big Lake	Ft Richardson	8/88	370	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	5/89	1,256	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/90	1,028	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/91	514	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/91	470	Catchable
Rainbow Trout	Swanson River	Ft Richardson	6/92	1,006	Catchable
Rainbow Trout	Big Lake	Ft Richardson	5/93	674	Catchable
Coho Salmon	Seward Lagoon	Ft Richardson	5/80	2,348	Catchable
Coho Salmon	Seward Lagoon	Ft Richardson	6/81	3,500	Fingerling
Coho Salmon	Bear Lake	Elmendorf	6/91	6,268	Fingerling
Chinook Salmon	Crooked Creek	Elmendorf	9/88	807	Catchable

Appendix C37. Historical stocking records for Upper Fire Lake through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Rainbow Trout	Swanson River	Ft Richardson	6/85	115	Brood
Rainbow Trout	Big Lake	Ft Richardson	5/88	400	Catchable
Coho Salmon	Swanson River	Fire Lake	8/66	2,050	Fingerling
Coho Salmon	Swanson River	Fire Lake	8/67	5,050	Fingerling
Coho Salmon	Eagle Creek H	Ft Richardson	5/69	1,000	Catchable
Coho Salmon	Bear Lake	Ft Richardson	8/69	5,500	Fingerling
Chinook Salmon	Green River H	Fire Lake	7/66	1,340	Fingerling



Appendix C38. Historical stocking records for Walden Pond through 1993.

Species	Brood Stock	Hatchery	Date	Number Stocked	Age At Stocking
Arctic Grayling	Moose Lake	Clear	9/93	4,000	Fingerling
Rainbow Trout	Swanson River	Ft Richardson	6/91	2,016	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5/92	4,146	Catchable
Rainbow Trout	Swanson River	Ft Richardson	5,6/93	3,348	Catchable
Coho Salmon	Bear Lake	Elmendorf	6/93	5,000	Catchable

APPENDIX D

Escapement counts

Appendix D1. Salmon escapement counts in Ship Creek, 1960-1993.

Year	Chinook Count	Coho Count	Sockeye Count	Pink Count	Chum Count
1960	58				
1961	80				
1962	58				
1963	119				
1964	94				
1965	207				
1966	50				
1967	200				
1968	500				
1969	710	142		211	200
1970	1,746	2,234		448	39
1971	221	1,206			41
1972	121	85		147	165
1973	165	64		14	93
1974	146	250			
1975	120	85			
1976	806				
1977	1,011	436	3	584	472
1978	867	381	3	613	155
1979	124				
1980	256	90	1	99	116
1981	1,000				
1982	665				
1983 <sup>a</sup>					
1984 <sup>a</sup>					
1985 <sup>a</sup>					
1986	1,433				
1987	1,030				
1988 <sup>a</sup>					
1989	238				
1990	761	71			5
1991	318	412			6
1992	789	55	2		
1993	706	47	2	22	
Average	487	397	2	267	129

<sup>a</sup> No count conducted

Appendix D2. Salmon escapement counts in Eagle River, 1963-1993.

Year	Chinook Count	Coho Count	Sockeye Count	Pink Count	Chum Count
1963	135	200*			
1964	123				
1965	159				
1966	49				
1967	50				
1968	28				
1969a					
1970	81				
1971a					
1972a					
1973	61				
1974a					
1975a					
1976	81				
1977	313				
1978a					
1979a					
1980a					
1981a					
1982a					
1983a					
1984a					
1985a					
1986	222				
1987a					
1988a					
1989	37				
1990	326	2			1
1991	513	3			
1992	336				
1993	378				
Average	181	2			1

<sup>a</sup> No count conducted

\* = Estimate of coho salmon in Meadow Creek, (not included in average)

Appendix D3. Salmon escapement counts in Bird and Penguin creeks,  
1984-1993.

Year	Chinook Count	Coho Count	Sockeye Count	Pink Count	Chum Count
1984	21			420	
1985 <sup>a</sup>					
1986		3		500*	100*
1987 <sup>a</sup>					
1988 <sup>a</sup>					
1989	70			615	184
1990	109	9		**	**
1991	156	50		**	
1992	142	101		**	
1993	72	593			60
Average	95	151		512	115

<sup>a</sup> No count conducted

\* = Estimated count

\*\* = Observed but not counted

Appendix D4. Salmon escapement counts in Campbell Creek, 1958-1993.

Year	Chinook Count	Coho Count	Sockeye Count	Pink Count	Chum Count
1958	6			1,000*	
1959 <sup>a</sup>					
1960 <sup>a</sup>					
1961	70				
1962	40				
1963	187	22			
1964	116			142	20
1965	119				
1966	15				
1967	300				
1968	125				
1969 <sup>a</sup>					
1970	63				
1971	102				
1972	37				
1973	201				
1974	79				
1975 <sup>a</sup>					
1976	210				
1977	349				
1978 <sup>a</sup>					
1979 <sup>a</sup>					
1980 <sup>a</sup>					
1981 <sup>a</sup>					
1982	68				
1983 <sup>a</sup>					
1984	423				
1985 <sup>a</sup>					
1986	733	99	877		
1987	571	132	545		
1988 <sup>a</sup>					
1989	218		51		
1990	458	126	317		2
1991	590	282	844		
1992	931	157	575		
1993	937	2,312*	493	13*	3*
Average	278	447	529	385	8

<sup>a</sup> No count conducted

\* = weir count

Appendix D5. Salmon escapement counts in Sixmile Creek, 1988-1993.

Year	Chinook Count	Coho Count	Sockeye Count	Pink Count	Chum Count
1988			2,190	958	
1989			1,321	377	
1990			1,415	1,678	
1991			1,845	597	
1992			711	199	
1993			5,021	1,013	
Average			2,084	804	